THE LANCET.

VOL. I.] LONDON, SATURDAY, NOVEMBER 23, 1833. [1833-34.

ANATOMY AND PHYSIOLOGY.

LECTURES

ILLUSTRATED BY THE

HUNTERIAN PREPARATIONS

IN THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS, LONDON.

Delivered at the College in 1833, *by*

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LECTURE II.

BONE.—*Its Purposes.—Detection of the Name and Habit of an Animal by the Examination of Parts of its Osseous System.—The Unity observable in Animal Frames.—The Centres of Animals; their alleged Permanancy the result of permanent Function.—Adaptation of Form to Function.—The Processes of Bone.*

IF you have any hope of obtaining accurate knowledge on the subject we are discussing, you must adopt simple principles in its examination. Hitherto we have proceeded on this fact, that bone, in order to give strength and a power of resistance to animals, is as necessary as muscular energy; and that to impart the means of resistance to animals, there must be a secretion or a deposit of matter which is capable of resistance, whether it be secreted internally, in the form of a skeleton, or externally, as I said was the case in the lower animals.

Now it is a question with naturalists, whether each portion of hardened matter, such as you see in the armadillo, is a type of the skeleton or not. You know, not only that the skeleton is internal, but that it is alive,—that it is under the influence of a living principle;—that it is growing with the growth of the animal,—that it is strong in proportion to the muscularity of the animal,—that it changes with all the other living portions of the body. Such, without doubt, is essentially the character of the skeleton. You may be tempted to think it a false analogy to compare the animal skeleton with the woody fibres of vegetables, or, if you would rather, the phosphate of lime with the siliceous matter that is deposited in vegetable matter. But they each perform, in some respects, a similar service, and in the osseous system the phosphate forms the texture by means of which the muscular system is enabled to act. You will find, too, that it is the part which remains after the destruction of all the softer parts of the frame,—giving character and form, and permitting the exercise of function, in every part of the animal. Bone, therefore, affords the very best foundation on which the living animal system can be explained.

Now you will observe, that bone is by no means a simple material. Indeed we shall have to advert to the existence of three distinct substances in bone, the fibre, the cartilage, and the phosphate of lime. You probably know, that by the union of different metals a third property is sometimes produced. In like manner you may suppose that the combination of three materials in the form of bone produces the property of resistance. We certainly do observe, that, even in the human system, one bone possesses more cartilage, another more fibre, and a third more of the hardening material of bone—the phosphate of lime. Such you find to be the case in all animals. You have, as it were, a descending series with regard to the hardness of bone—that is, you have fishes in whose osseous system the phosphate of lime forms a considerable part, and you have cartilaginous fishes in which there is but very little deposit of lime, but a higher degree of elasticity. In short, if you think for a moment or two,—if, for instance, you examine strictly the wrestler, you will see that bone has not merely to bear up against an incumbent weight, but that it is pulled like a rope, and that it is twisted, so that it must possess different properties, and not merely form a pillar for supporting the weight of the body. These three qualities are capable of being

developed in bone, by its possession of these three materials in its substance.

Another circumstance connected with bone, and one which I have before noticed, is its vascularity. You are aware of its porousness, and you may observe that it limits, as it were, the size of animals. The first thing we have to notice is, that the resisting matter is deposited with a perfect precision and accuracy—on a mechanical principle;—that if a bone is to be formed as a pillar for the support of the body—the thigh-bone, for example—the materials which constitute it are removed from the centre, the bone becoming tubular, and in proportion as the structure is removed from the centre does it obtain strength. Demonstration of the cylindrical form of bone, I dare say, you have often seen at public lectures. But if you wish a more particular proof, it may be seen in the experiments made on a strong piece of timber. When the transverse fracture of a piece of wood is attempted, it is found that different portions of the wood resist differently. Divide it, if you will, into three portions; that which is external resists by its density, that which is beneath resists by its toughness, and there is a certain part which is neutral, and which you may dig away without diminishing the strength of the material. It is in this way that nature has removed the internal cancelli of the bone, and, with that mass of material, has formed a strong column; for you will find throughout the system, that there is nothing superfluous; not even the deposition of a portion of bone is superfluous. There is no waste in the animal body. But need I refer to bone to prove this? Does not everything you see prove it? Do not vegetables prove it? A reed, or even a straw, proves it. I am reminded here of one who was persecuted by the inquisition. On being brought out of his prison before the tribunal, he was asked if there were a God. A straw had stuck to his garment; taking it thence, he held it up and said, "If I had nothing to contemplate in prison but this straw, by it should I know there is a God."

Let us proceed. We find that there is a limit to the size of animals. I beg your attention to this mass which is before me—a bone of a megatherium. Now this bone must be constituted with vessels, it must have pores, and it has the phosphate of lime as a strengthening material. I would illustrate it thus. If you wish to make an arch over a narrow brook, you can make it with brick; if the span of the arch is too great, you must have freestone, but if you want the catenarian arch, the material must be harder still; it must be of the densest quality that can be found, because in proportion to the span of the arch must be the pressure against each part, and if the material be soft and mouldering, of course it will be crushed. Then do we not observe that there is something clumsy as it were, something, as it were, artificial, in this bone, if we compare it with the thigh-bone? The thigh-bone is elegant and perfect in its form, and is this mass of bone before me an unshapen incongruous mass? Is there really irregularity in it? Far otherwise: it is constructed, if I may so speak, on the Egyptian order of architecture; and such a form is necessary to it. The Egyptians, you know, used to cut out their temples from the massy rock. It is clear that it must have increased from a small size, and the mass indicates that the utmost size of a *terrestrial* animal is here acquired. If you contemplate anything larger, it must be in the carcass of an animal living in, and supported by, water,—an aquatic animal, and not one which rests upon extremities.

The next thing to which I beg your attention is the form termed "vertebrata." This term is given to all those animals which have a perfect internal skeleton. There is an object in having such a class as this. It forms an order which naturalists must always have, an order which declares the character of the whole skeleton. Here is a vertebrata, with a column for the spine. Now that column is the part by means of which the whole skeleton is connected; it is that which gives attachment and firmness to the ribs. The ribs are important agents in the act of breathing, and the importance of respiration I need not mention. Now before the ribs can act, there must be muscles to move them, those muscles must have nerves to excite them, and those nerves must have origins different from the nerves employed for breathing. Hence you have the medulla oblongata and a spinal marrow, so that to the naturalist and comparative anatomist the term "vertebrata" implies the possession of a spine, of organs of respiration, of muscles adapted to act, of nerves adapted to those muscles, and these altogether imply a conformation or arrangement of a complete nervous system, originating from a spinal column. Hence there can be no word that more effectively describes the essential character of a true skeleton than "vertebrata."

Now a chief character to be noticed in a skeleton is its unity. There is no part of the skeleton which does not equally belong to the whole frame, and to every part. It is not like the work of an artist, a watchmaker, for example, who can put an ad-

ditional movement in a watch. If you require that a watch should indicate the minutes, or moments, or the day of the month, a new wheel which will lift the pendant that is playing into the teeth of some of the existing wheels, the teeth of this new wheel being appropriately measured off will give the motion desired, and by putting a new hand to the watch, another property would be given to it. But this is an additional movement, and has no resemblance to what the addition of an organ in the animal body would be. If an animal have an additional external organ, an additional claw, a wing, or any other external organ whatever, which is not natural to the animal, that member does not act. Thus a fifth leg in a cow is monstrous. So the double head of a monstrous cow, in which one head is alive and the other inanimate, is a mere appendage, not having the same relation to the bony and soft parts and nerves of the animal, but all which it must have to ensure its appliance to particular purposes in the animal economy, and to give it a disposition to act, an instinct, without which, of course, there will be no action in the extremity at all. And here arises a question amongst naturalists, whether instinct and the desire of activity do not arise from necessity out of the existence of such an appendage. Certainly not. There must be a disposition arising independently of that: there must be engendered a particular instinct. This we have to prove by the examination of the skeletons before us. A plan is discoverable throughout—a unity of design.

Now suppose we take any one bone of the body; suppose you are anxious as geologists to discover what these bones are which lie on the table. By-the-by, Gentlemen, this is a highly interesting subject, because it proves to you that by due attention to this part of anatomy (hitherto much despised as an inferior branch, and one which students only take the trouble to study as leading to something else) origin is given to a new science, and nothing is more pleasing than to perceive that sciences, however apparently remote, have an immediate connexion. Suppose you take any one of these bones, and endeavour to arrive at a fair and legitimate conclusion with regard to its place in the animal kingdom. Here is a scapula. Now a scapula has various functions. It is found in all animals which have an anterior superior extremity,—even in the whale. What, then, are the functions to be performed by it? I once heard of a boy who had no arms, but I found on examination that he had scapulæ. On bidding him breathe with all his force, I found that the scapulæ were raised, and became fixed points, and that then the muscles of respiration began to expand the thorax,—a fine proof, if any were necessary, that the scapulæ in the higher animals perform a necessary part in the grand function of respiration, though we commonly regard them as forming only a part of the upper extremities. Now even he who attends merely to human anatomy, sees perfectly well that the bone I present is deficient, that it wants the broad spine, that it wants the acromion process, and wants, therefore, the attachment of the clavicle. This, then, must have been the scapula of some ruminating animal, some feeder on vegetables, because the purpose of the clavicles is to support the shoulders—to give play to the muscles of the humerus in each arm, which, but for the clavicle, would draw the shoulders together, as in the horse. Wherever, then, there is a great extent of motion in the upper extremity, there is a clavicle. Now here is an immense bone. What bone is it? Say we are ignorant of its name. What circumstances will enable us to learn its name from the condition of the bone itself? You see with comparative ease, from the processes whence the muscles arise, that the animal was one of great strength, for the processes of bone are always indicative of the power of the muscles. First, you find here an acromion process, and under that a large cavity for the articulation of a clavicle. The animal then had a clavicle. This is an important point ascertained. It had a clavicle; the shoulders were kept apart; it had great motion in the humerus, and probably in all its extremities. Let us refer to another example; take this humerus. Say we have no other portion of the animal to which it belonged. Yet in this we have a type of the whole, for there is a certain convexity here which must have corresponded with the glenoid cavity of a scapula. We see no let, no hindrance, at the head of the bone. It is clear, therefore, that the animal must have had a considerable extent of motion in this extremity. Looking down the bone, we fine a prominence which implies the attachment of a powerful muscle, the deltoid. That circumstance alone proves, that it must have had a rotary motion. Then again there is a spine here. What does that imply? It is the process which gives rise to those muscles which elevate the hand. Hence we learn that there was motion in the radius, for unless that were the case, wherefore should there be a supinator? Thus, from a single bone, you have already obtained a knowledge of the scapula and of the motion of the forearm, and you might perhaps do the same from

some other bone. Here is another humerus. You perceive in it at once, that the surface in contact with the scapula is not part of a circle, and does not allow of universal action, but motion only in one direction. There is no motion in the direction sideways. A process obstructs it. It is clear, however, that a powerful muscle is inserted at such a point, that the power of throwing forward the anterior extremity is very great. There are in it no processes for giving attachment to the muscles which move the wrist; all the muscles, therefore, are concentrated to perform one act,—that of throwing the leg forward. Suppose, again, you have only the portion of bone now in my hand. On the same kind of examination you find, by the surface which forms the articulation of the humerus, and which acts like a spindle, moving with the head of the ulna, that there was free motion in the wrist of the animal to which it belonged. Now, to have free motion in the wrist, you must have free motion in the humerus, in the scapula, and in the phalanges of the fingers. Else what would be the use of rotation in the wrist? But let us inquire farther; for all this implies that here we have the bones of a carnivorous animal—the bones in fact of the lion. Here is another bone; you recognise it to be a humerus, and remarkable for its extraordinary projecting processes. Is it that of a lion? No; the motion of a lion is simply cat-like—to strike. This indicates another quality, not to strike, but perhaps to burrow. Having got this idea you find other bones of the animal, implying extraordinary power in the arm for burrowing, and not for clutching. President Jefferson fell into a great mistake once on such an occasion as this. He examined the extremity of an animal which he saw terminated in a claw, and he argued that he had got the bone of an animal which had claws,—a carnivorous animal, which he estimated to be four times the size of a large ox. Now the mind may be relieved from the conception of so enormous a carnivorous animal, by turning to Cuvier, who has given us a beautiful example of professional reasoning. That claw, he said, could never be retracted into the paw, and instead, therefore, of its being the claw of a carnivorous animal, it was the claw of such an animal as the one I now point out, the ant-eater. Observe the strength of the bones, and what muscles there must have been to correspond with the processes. Here, then, is an extraordinary projection of a claw for digging. And mark, too, that the ant-eater is a small animal which digs for and feeds on ants. Instead of being a wild carnivorous creature, the motion of whose anterior extremity is like that of a lion or a tiger, we find the extraordinary processes of the bone to be far beyond what is necessary for the motion of the lion's paw, and that it digs the earth and lives on ants.

I now proceed to show the unity of the system, and for that purpose will at once take up any bone that is before me. I may take up a jaw-bone, with the teeth. It will lead us more directly to our object, though it is my intention to show that other parts of the skeleton besides the teeth, are indicative of the propensity, character, and habits, of the animal. Now, he who is minutely acquainted with comparative anatomy will find, that in the vertebrata a certain freedom of motion is apparent. What does that imply? The power of a cat-like motion, such as we see in the tiger or the lion, or some of the canine tribe, and if certain processes strike out from the extremities, the anatomist infers great strength in the long muscles which run upon the spine, and thus judges of the motion from the form of the bones. But if he proceeds further, he may find reason to suspect that he has got above the form of carnivorous animals. Again, he may find a bone of a new form, where the vertebræ are locked together, and leading him to imagine that he has got part of some herbivorous animal, some creature which did not employ the lateral-like motion denoted by the spine of the lion and tiger. There are some vertebrata which have very short spinous processes, but in this animal the spinous processes of the vertebræ of the back are elongated in an extraordinary manner. Here, then, is an instance of the necessity of studying parts in their natural connexion as to action, independent of place. We see that the character of these vertebræ imply great strength in the head, as I shall presently show you. It is thus that you discover from one bone the necessary form of another. Free motion of the scapula implies free motion of the humerus, which, again, implies a rotary motion in the bones of the forearm, whence also we are enabled to infer the claw-armed bone of carnivorous animals, and that leads us also to the form of the jaw. The form of the jaw, too, would be implied by the form of the condyle. You perceive from the condyle here broken off, that the animal could only open and close its jaw,—that its jaw could not have lateral motion—a grinding motion,—that it would have sharp teeth, like a saw. Thus we find that the claw corresponds with the teeth, and these correspond with strong canine teeth. From this point you may proceed internally, and from the canine teeth ad-

vance to the long throat, to the membranous stomach, to the short intestines, to the want of a cæcum, to the lobulated liver. Thus we have the whole form of the animal indicated by one joint, which forms a key to all the rest. You understand by this what I mean by the "unity" of the skeleton,—each part peculiarly adapted to the rest, and not like the wheels of a watch, which may be increased at pleasure.

Still keeping in view the subject of skeletons, I object to the term "law," which some of the French physiologists have employed. They have said that it is a law that the centre of the skeleton is more or less permanently fixed, but that the extremities vary. Now I do not like the term "law," because it implies, that with the determination of that law your investigations terminate,—that we can go no further,—a law stops us. This is not the right way of looking at any subject; it closes our interest in it at once. Let us see, therefore, if the idea be a correct one. Let me submit to you another bone, with the purpose of showing that form always corresponds with function, and that it is the function which determines the form. Now it is very obvious why the central part of animals is permanent. It is because the function is permanent. It is an essential part of all vertebrata, that there should be a spinal marrow, and it would be very extraordinary for the function to continue while the chord within the spine varied. But it varies in various parts. You know, as anatomists, that the spine is always demonstrated first as a column to support the whole human body; then as a tube containing and protecting the spinal marrow; and, thirdly, as processes or levers which are to be acted upon by muscles. Now although the spine does not vary in its protection of the spinal marrow, it varies in a remarkable manner with regard to its processes, as you see here in the spine of the boar. What is the meaning of these enormous spinal projections? Look to the head, where its instruments of defence, its great tusks, are situated. The use of these great tusks is to burrow and dig up roots. There is a necessity, therefore, for extraordinary power in the head and neck. You see it evidenced in the processes of the head and skull, but more particularly in the great processes of the vertebræ of the back, which give origin to powerful muscles for throwing up the head with great power and force. Here, again, is an instance of adaptation. If you examine the head, also, you will find that it varies in different parts. The posterior part being merely a brain case, does not vary; but the anterior is infinitely varied, according to the necessities for food, and the condition and habits of the animal; not because it is an extremity, but because it assumes different functions; whereas the head, so far as it is a brain case, is ever permanent. Now then take the thorax. That is the very centre to be sure. In tracing down the classes of animals in which the mechanism of respiration is performed by the ribs, you find a certain shape of the thorax, and, on a superficial view, you would say that the form of the thorax was permanent. But if you descend a little in the scale, you find that that shape is by no means permanent, and that no sooner does the function change, than the form of the ribs changes. In the saurian reptiles, the ribs take a new shape; their articulations are very singular, and we naturally inquire what is the meaning of that. I surmise that there is a change in the form of the ribs, because it is necessary to compress the thorax. The animal must go under water; it must increase its specific weight; the muscles of the chest, therefore, compress the lungs, otherwise the animal would have to struggle against its own lightness. The ribs then take this form in order that the animal may be enabled to seek its safety in the water. Now in the batracian order, in a frog, for example, there are no ribs. Well, then, a different form of respiration exists. Between the clavicle and the margin of the jaw there is a great bag, which receives the air, and propels it into the membranous lungs, which lungs extend through the whole length of the animal's body. It is clear then,—as the trick of cruel children when they blow a frog, shows,—that it cannot go under water, and never could if the lungs remain in that condition. The whole of the lungs may, therefore, be compressed, and the specific weight of the animal so increased, that it can dive under water, which it could not do if it had ribs; because if it had, the lungs must expand, and there would be a struggle between the muscular action of the animal and the lightness of its body, preventing it from creeping at the bottom of pools. Thus we make out, I think, pretty clearly, that even in the centre of animals the formation is adapted to the variety of function.

You find a more extraordinary and remarkable adaptation of parts to functional uses as you proceed towards the extremities, for in them more abundant reasons exist for variety of form,—such as the mode of life, condition, and necessities of the animal. Take an example from the bones of the shoulder, where the scapula, the clavicle, and a triangular portion of

the sternum, form a circle. Now I have hinted that these bones join in the act of respiration in man and the mammalia. But what is their form when the ribs are withdrawn? It bears no relation even to the example I have mentioned in the saurian tribe, where the ribs are weak in proportion to the strength of the animal. The bones of the shoulder, containing a triangular portion of the sternum, the scapula, and the clavicle, as bones of the shoulder, acquire a new form, and with that an increase of strength. And as to the batracian order, where the ribs are entirely absent, you find quite a new model, as if indeed the constructor were at work upon a new system. Thus every function requires a new shape, so that it is almost impossible to recognise the original model, as it were. In the chelonian tribe, the form of the ribs, and the position of the scapula and clavicle, again vary. It is pretty clear, therefore, that it is not because a part is near the centre that the shape is permanent, but because the function is permanent there, and that the varieties of function become greater as you approach the extremities.

There is a circumstance which I believe I have almost anticipated, and that is, that the spinous processes have two distinct purposes—the strengthening of the column, and the giving a firm attachment to muscles. How do we prove the first point? Take an example from a tree which is blown down. It is torn up from one side, and the woody fibres of the opposite side are pressed into each other, while the central part is entire,—neither torn asunder nor crushed. This corresponds with what is observable in the skeleton; the central part is neutral in such an accident. It undergoes scarcely any violence. Its safety and its permanency are thereby greatly secured. The wisdom displayed in the construction of bones is, in fact, evident from a comparison with many other facts in natural history and mechanics, all tending to disprove the notion that there is chance in their construction. Thus you might suppose that in the femur there is a chance-like irregularity in the structure. On the contrary, in every portion of the cancelli, there is an exquisite attention to pressure. How do I prove that? In the human femur, you know that the weight presses upon one extremity of the bone—may I say at a disadvantage?—for the bone is not perpendicularly under the weight. From the weight of the body being on the head of the thigh-bone, the depressing force would split the centre, had not nature given it a buttress of great strength. Here is a sectional drawing of a tree which has been torn up. The force in the condyle of the femur so concentrates, that every little filament of bone bears on a buttress. It is not so here in the tree, for in that the fibres all concentrate in this long spine. There is no such property in bone, and it may be useful to surgeons to notice the fact. A common accident to the thigh is the abrupt fracture and coming off of the head of the bone. It very often happens that this strong projection of bone acts like a wedge, and is driven into the shaft of the bone, splitting it up, and presenting quite another kind of case. I make no apology for this illustration in a college of surgeons.

But we must notice, with regard to the spines of bones, of human and all animal bones, that not merely is the resisting material removed from the centre, and therefore made mechanically stronger, but it is much more dense. For example; the surgeon feels, when he is sawing across the tibia, that the instrument rattles on the anterior spine, which is harder, more like ivory, than the other part of the bone. It is not cylindrical, because the weight presses unequally on the bone, and nature has, accordingly, protected it by throwing the hardening material more from the centre. Just as the artist would put a portion of dense wood where compression is greatest, so has nature made this spine denser, firmer, and more capable of supporting the weight which is thrown upon it,—as, for instance, when you are about to take a leap.

I have said, Gentlemen, that the spines of bones have two purposes. They strengthen the bone in a particular direction, and evince to you, in studying osteology, the connexion which exists between the office, motion, and form of the bone. But these spines have another use. They furnish an attachment for muscles. It is a vulgar, incorrect idea, and you probably know it, that a fine tall fellow will make a fine skeleton. He makes but a poor one. But in a man who is well knit together, who is muscular and powerful, nature has combined the parts so admirably, that with the additional quantity of muscle you have great power, for there is always a correspondence between the active power and the power of resistance, which latter is afforded by the processes. Now, the irregularities of bone are to be regarded as a second proof of what are the characters of the muscles. In the mole you see how the scapula rises up; you see what a lever it supplies. In the ant-eater you find a bone of extraordinary strength, corresponding with the functions of the fore-arm, and a claw by which the earth is to be pushed

aside. It is aided by a powerful muscle, having the platysma myoides changed in its nature, becoming a powerful muscle, and causing the head to pass forward like a ploughshare. In fact it has additional bones in the snout for that purpose. In the armadillo you see the same, with vast strength in the scapula, proportioned to the size of the animal. Then observe the curious form of the humerus, which yet, however, corresponds with the radius and ulna, and the bones of the carpus and finger. Here is a creature more singular still in this respect. It has a double spine in the scapula, implying great power in that bone. Look at these large spinous processes in the ant-eater. See how the ulna projects. What power must be there! Carry your eye forward and observe the strength of the carpus and metacarpus. Look still further and notice the one extraordinary claw. You might imagine that these were the bones of a carnivorous animal; but they are obviously for digging. Now look at the skull; there are no teeth there corresponding with those of a carnivorous animal. It digs for and lives on ants. It it shown to be the ant-eater by that circumstance, though more particularly so by those processes in the arm which imply the digging motion of its claw.

I find, Gentlemen, that though the hour is gone, I have as yet but in part demonstrated that every portion of the skeleton has a relation to its other parts,—that the skeleton is a type of the form, and, consequently, of the classification, of the animal. I must, however, stop here, intending to resume the subject at the next lecture.

CLINICAL LECTURES

ON

DISEASES OF THE UTERUS AND ITS APPENDAGES;

NOW DELIVERING IN PARIS,

BY M. LISFRANC.

DERANGED MENSTRUATION CONSIDERED AS A CAUSE OF ENGORGEMENT OF THE UTERUS.

IN the former lecture we described at length the two chief means employed in the diagnosis of morbid alterations of the uterus, viz., the touch and the speculum. Before, however, we pass to an examination of its special diseases, it will be useful to consider the influence exercised on them by functional derangements of the uterus,—a study which is as necessary for the prophylactic treatment as the etiology, and which has not hitherto been described by any author in a copious manner.*

The derangement of the uterus as regards menstruation, may be referred to four heads, viz., 1st, deranged mentruation at the period of its establishment in the young female; 2nd, at any time during its usual course; 3rd, at the period of the cessation of the menses; 4th and finally, the various accidents which accompany their derangement of function.

1. *Absence of Menstruation.*—There are certain females who never menstruate. I have had occasion, within a period of ten years, to notice fourteen cases of this kind. The influence exercised by this state on the constitution varies according to the individual. Some of them, at each return of the menstrual period, become extremely sensitive, irritable, and ill-humoured; they experience dizziness, suffocation, a feeling of weight in the pelvis, colicky pains, &c. without the discharge of a single drop of blood. Other females arrive at an advanced age without experiencing periodic indisposition, but they are commonly women of infirm health, more or less emaciated, whose flesh is soft, flaccid, &c.; their yellow complexion announces suffering, and in some cases they are harassed by colic, diarrhœa, palpitation of the heart, headach, &c.

What are we to do in similar cases? Some physicians attribute these phenomena to the organization of the woman, and content themselves with a rational inactivity; others, regarding the absence of menstruation as the morbid cause to be combated, endeavour by all means in their power to establish this function. The remedies used for this latter purpose are frequently more injurious than beneficial, and increase the congestion of the uterus by causing an afflux of fluid toward the pelvis. Hence the symptoms are frequently aggravated, and, persisting from one menstrual period to another, do not give the unfortunate patient a moment's repose.

Before we attempt any treatment, it is above all things necessary to assure ourselves of the cause which prevents the establishment of the menses. In many cases the toucher reveals an engorgement of the uterus, which must be got rid of. In two instances of the kind I have succeeded in bringing about a regular menstruation, by dissipating the state of congestion. One of the females has since become a mother. When this cause does not exist,

* Certainly by no author in the original and copious manner of M. Lisfranc.—ED. L.

and when the derangement is of many years' standing, the disease is in general beyond the power of art, and we should give over any attempt at re-establishing the function of the uterus. But we do not mean by this that the women are to be abandoned to their sufferings; we may supply the neglect of nature, and set up an artificial sanguineous evacuation. Thus, whenever the return of pains announces a menstrual period, blood should be drawn from the arm to the amount of five or six ounces; or five or six leeches may be applied to the arm, and the blood allowed to flow for a short time from the bites. These means may be aided by warm-baths, moderate exercise, and appropriate regimen; thus if the woman be feeble and not nervous, a nourishing diet with some tonics must be prescribed. When the nervous system predominates, we should employ narcotics in the form of frictions and clysters. If the pain, instead of returning periodically every month, should be continual, the indication is the same; we endeavour, by observing some aggravation of the symptoms to fix on the period corresponding with the menstrual one; and if there be no remission, we must only choose a period at hazard, and employ the above-mentioned means at its monthly recurrence.

As it is necessary in these cases to make a deep impression on the constitution, the treatment must be continued for several months or even years, but perseverance in this way will almost always effect a considerable diminution of the pains, or end by removing them altogether. To this absolute absence of the menses we may add their periodic absence during a time more or less considerable. I have seen females who menstruated only every four or six months, or even every three, four, or six years. In some of these cases the women suffer habitually, and the mode of treatment is the same as that which has been indicated for complete absence of the menses; but sometimes they enjoy to all appearance the most perfect health. But we have to fear lest this deceptive calm may conceal some dangerous affection which will break out at a later period in some disease of the heart, some chronic pulmonary affection, or a latent peritonitis. I was acquainted with three young females who had never been pregnant, and who menstruated at very long intervals: they are all now dead. One was cut off by an aneurysm of the heart at the age of 21; the two others died at the ages of 19 and 24, of tubercular phthisis. Hence I think it prudent to draw blood from the arm occasionally in cases of this kind. I have thus treated a woman of 36 years of age, who has not menstruated for ten years. The precautionary bleeding has preserved her in a good state of health.

2. *Period of the first Menstruation.*—It is generally believed that the uterus is free from morbid alterations before the period when menstruation usually commences: this is an error. M. Carron du Billards found a polypus accompanied with uterine engorgement in a child of seven years. Many women of an advanced age refer the commencement of their indisposition to puberty. Thus, I have had occasion to treat the wife of a lawyer, in whom general health commenced to give way before the period of menstruation. She experienced pain in the loins; constant sensation of weight, with pain in the pelvis. At first she was treated for a gastro-enteritis; but I suspected a quite different cause; examination of the uterus showed a sub-inflammatory engorgement of that organ. This condition was combated by appropriate means, and the patient now enjoys perfect health.

The theory of menstruation might lead us to the same conclusion as these facts have established. The menses never appear all on a sudden. For a long time before their appearance the blood is determined toward the uterus; if the issue of the menstrual fluid meet any obstacle (and we know with what difficulty menstruation is in general established), this fluxion of blood repeated every month, must naturally end in an engorgement of the organ. To this cause we must refer the lumbar pain, the weight which young girls feel in the pelvis, the consequent paleness of countenance, the puffiness of the face, the loss of appetite, of strength, the sense of suffocation with palpitation, which more than one physician has attributed to an aneurysm, or to something still more vague, *a disease of the heart*.

What contributes still more to render the diagnosis obscure, is, that the female suffers much less at the commencement of the affection, and that a feeling of ill-directed modesty prevents them, especially at this age, from explaining clearly the sensations and inconveniences which they experience.

The preceding observations prove how important it is in the prophylactic treatment of uterine disease, to favour as much as possible the establishment of menstruation in young girls. We do not now speak of those who are healthy and strong, in whom nature can afford to make some efforts; but if the young girl be weak, let her be put on a nourishing diet, and take some slight tonics as soon as the premonitory symptoms of menstruation appear.

Cold aromatic baths, with exercise in the open air and sun, are powerful auxiliaries. In cases of this nature also, we employ with advantage local applications, stimulant foot-baths, aromatic fumigations, small clysters very warm, warm injections of the vagina; warm cataplasms round the pelvis or to the vulva, dry cupping-glasses, flying blisters, a few blisters to the ankles or legs, to the inner and upper part of the thighs, seldom to the vulva, small bleeding at the saphena vein, &c.

When the foot-bath is employed, the water should rise up as high as the knees at least, to obtain all the advantage possible. I can assure you from experience, that the simple foot-bath to the ankles is more injurious than useful. If, on the contrary, symptoms of uterine congestion appear in a young woman of strong constitution, these local remedies will only increase the evil. In this case we must have recourse to warm-baths frequently repeated, to a vegetable diet, less nutrient than that ordinarily used; to moderate exercise, and, finally, in many cases to one or two small bleedings at the arm, of from three to six ounces.

Masturbation is a cause which frequently deranges and opposes the establishment of menstruation. Besides the mechanical means usually employed, we must, in these cases, endeavour to calm the moral condition of the patient, by removing every cause of excitation, and to appease any existing excitement by narcotics chiefly administered by the rectum. Whatever be the means of treatment which we propose to adopt, it is essential not to bring them into activity before the presumed period of the menses, or twenty-four hours before it. In the intervals we should content ourselves with general palliatives.

The choice of local agents is far from being indifferent; nothing is more capricious, more *bizarre*, if we may use the expression, than the function of menstruation. In some females foot-baths will bring them on; in others it is arrested by the same means; the application of a *chauffoir*, journeys on horseback, or in a carriage, and a variety of other circumstances, enjoy by turns, opposite properties, according to the individual. The temperament and constitution of the female seem to have no influence in this respect; each female has a special idiosyncracy for this function, which we must watch and respect carefully in those who have already menstruated, and which requires the greatest caution in the choice of remedies where experience has not yet revealed its exact nature.

3. *Painful Menstruation.*—The menses when established are not always free from accidents. In many women the periodic return of menstruation is marked by intolerable pain, which appears a few hours before the discharge comes on, and continues a few hours after it has ceased, remaining either during the whole time of the discharge, or some days later. In most cases the painful menstruation is an hereditary disease, and if the women who suffer from it are questioned, we shall find that several individuals of their family have suffered in the same manner, and are, perhaps, dead from some uterine disease.

This circumstance then requires a serious attention. We can readily conceive how a uterus, which has been exposed monthly to similar congestions for a period of twenty or thirty years, is more exposed than any other to consecutive alterations; this is a fact which I have had occasion to notice very frequently. When the state of the parts is examined in the interval of the menses by the touch, we find the neck, and more frequently the body, of the uterus, gorged with blood, increased in size, and in a sub-inflammatory condition. When the disease has once arrived at this point, the engorgement must, above all other things, be combated by the means which will presently be pointed out; but if we find the uterus in a healthy condition, the female must not be abandoned to her sufferings, as many practitioners advise, who see only in this state the natural effect of a peculiar constitution. Without doubt it is difficult to attain a perfect cure, but we can always at least alleviate the pain. Here the constitution of the female should be the object of our peculiar study, not as an empty speculation, but to throw some light on the treatment which should be employed to modify it. In most cases these pains are merely nervous; the abdomen of the woman seems to be lifted up by something inside; she feels violent contractions and sexual desire, but connexion, far from being agreeable, only irritates the nerves. When an injection is thrown into the vagina, it is immediately rejected; the pulse is small, hard, vibrating; there is subsultus tendinum, and the least emotion throws the body into a state of agitation.

In cases of this kind we endeavour to calm this excited state by narcotics, and chiefly laudanum, administered in small clysters two or three days before the period of the menses; but here we must continue to act, during the intervals, from one period to another. If the woman is simply nervous, warm injections by the rectum, cold-baths, narcotics, frequently are

of great service, but in other cases they are injurious. In this respect we must study with care the idiosyncrasy of each patient. For lymphatic women, whose flesh is soft and flaccid, we prescribe bitter tonics, cold-baths, a nourishing diet, some narcotics, and, even in the midst of the menses, a very small bleeding. For plethoric women, who generally lose little blood, we recommend, in preference, warm baths long continued; a vegetable diet, reduced gradually to three-quarters, or even two-thirds, of the usual quantity taken; very moderate exercise; emollient drinks in abundance. Coffee and strong liquors are to be prohibited; and, finally, twenty-four or forty-eight hours after the discharge has ceased, we practise a revulsive bleeding of four or five ounces, which must be repeated, if necessary, fifteen days afterwards.

When once the menses have appeared, we have nothing to do but favour their discharge. But it may so happen that the fluid, after a few hours, or a day's discharge, is suddenly arrested, though, on former occasions, the period of menstruation was much longer; here, if the uterus be sound, we must endeavour to bring them back in the first twenty-four or forty-eight hours after their disappearance; but when the secretory organ is diseased, the case is different; should we attempt to re-establish the discharge under such circumstances, nineteen times out of twenty our attempts will only serve to aggravate the pain. Hence I have laid this down as a rule, to give free latitude to nature in cases of this kind. I confine my practice to the employment of a revulsive bleeding of the arm next morning, which is repeated after fifteen days, with the use of emollient or tonic draughts.

Sometimes the primary affection of the uterus does not cause the sudden interruption of the menses, but merely diminishes their quantity; ought we here to favour a further discharge? In many cases I have done so with success; in others I have increased the uterine congestion, in useless efforts at attempting to increase the quantity of fluid secreted. If on any occasion they stop completely, we have good reasons for not endeavouring to bring them on again. On the one hand the measures employed will, in all probability, be useless; on the other, we have to fear that they may be positively injurious, by increasing the sanguineous congestion.

Finally, the menses may be excessive in quantity. It has been already remarked, that fat women commonly lose a very small quantity of blood; on the contrary, abundant menstruation is common amongst lean women. In some of these the loss of blood is excessive during the first two days; it rushes, as it were, in a stream from the vagina; the woman is compelled to remain in bed, and continues for a long time afterwards extremely feeble; frequent baths, if the woman is robust, with a light vegetable diet, will aid in moderating these excessive evacuations; but when she is weak and nervous, we must have recourse to narcotics and a generous nutrition; in either case we should not omit small revulsive bleedings of the arm, practised a few days after each menstruation, and repeated in the intervals, should they appear necessary.

4. *Cessation of the Menses.*—The mean term of the cessation of the menses is fixed between forty and fifty years of age; however, these numbers do not exactly represent the two extremes. I have often seen the menses cease at the age of thirty-five. I may also quote the case of a woman now forty-two, who has ceased to have any discharge for fourteen years, and I give you as an opposite example, the history of three women whom I attended, and who still menstruate, though one is fifty-four, another fifty-six, and the third is sixty-four years of age. They are of an ordinary temperament, and enjoy perfect health.

With regard to many women, the cessation of the menses is announced several months or years beforehand by derangement of the function; the discharge is sometimes too abundant, sometimes scanty, or comes on irregularly. By degrees the uterus modifies itself, and, finally, gives no longer exit to any fluid; but for some time after this the blood continues to be determined, each month, to the organ, and this becomes a powerful cause of congestion. However, we are not to believe with most writers on the subject, that affections of the uterus are more common at this period than at any other. The great law of physiology, that the more an organ is exercised, the more liable it is to affections, here holds good as elsewhere. From twenty to thirty-five years of age, the reproductive organs are most exercised, and observation shows, that diseases are more common between those two periods. There are a great number of women affected with diseases of the uterus in the hospital of *La Pitie*, and amongst those so attacked I do not remark more than three who have reached the age of forty. However true this may be, the critical age, as it has been called, gives rise, in certain females, to inconveniences arising from congestion of the uterus. In many, the venereal orgasm is

felt for the first time with violence, and here, nineteen times out of twenty, it should be attributed to irritation of the uterus, in the same way as irritation of the bladder or rectum occasions frequent erection in the male. Hence, also, we have pain, wandering heat, various nervous affections, headach, palpitations, whites, and, in many cases, hemorrhage.

These affections are most frequently met with in women who live in cities. In the country, women employed in laborious occupations, get rid of the materials which they no longer lose in menstruation, by exercise and fatiguing work. When accidents of this kind make their appearance, we should endeavour to combat them without delay by the means already pointed out. The well-informed practitioner will not seek to increase a scanty discharge by determining the blood towards the uterus, a sure means of establishing congestion of the organ, but will prefer supplying its place one or two days after the cessation of the discharge, by a small revulsive bleeding. The pains may be combated by baths, narcotic injections, and emollient clysters. Should the woman be a prey to excessive venereal desire, we should remember that this orgasm, though originally produced by the irritation of the uterus, may afterwards react on, and increase its cause; and complete abstinence is to be as carefully avoided as an excessive abuse. Moderate connexion with the male may be prescribed with very great advantage. Finally, if the discharge assume the character of flooding, we must have recourse to the means which will be indicated against this accident.

CURE OF

NEURALGIC AFFECTIONS

WITH THE

"MINERAL MAGNET,"

By E. S. BLUNDELL, M.D., *London.*

CASE 1.—Mary Anne Honneur, aged 56, residing on the Pavement, Moorfields, of a spare, nervous, dyspeptic habit, came to me to have the magnet applied to the articulations of the wrists and fingers, for an intolerable pain and heat in those parts, depriving her of rest and appetite, and gradually reducing her strength. Her pulse was quick and small, her tongue red and cracked; she complained of a burning sensation in the mouth and throat; the bowels were irregular; her skin was hot and rough; her eyes were dull and heavy; her hands and fingers swollen, rigid, and acutely painful when touched or moved. She was unable to lift anything, and incapable of attending to her household duties. She stated, that three years ago she was seized with violent pain in the stomach, which has continued more or less up to the present time. About twelve months back she also experienced great pain in the shoulders, which descended down the arms, and, finally, fixed itself in the finger joints of both hands. She has been under medical treatment eighteen months. Bleeding, both local and general, lotions, poultices, frictions, combined with a variety of internal remedies, had been resorted to without affording any beneficial results.

On the 2nd of July I commenced the magnetic application, by passing the instrument over the affected parts for the space of twenty minutes. The pain was considerably mitigated by this, and in a short time she experienced a pleasant glowing sensation, and had profuse perspirations. She also passed that night comfortably.

3rd. The *passades* were repeated, after which she was much easier. Has had a good night, and perspired copiously.

4th and 5th. The applications were renewed with decided benefit. She can now bend the first joints of her fingers without much inconvenience.

6th. Has had a bad night from an accession of pain in the middle and ring fingers of the left-hand. The right-hand is considerably better. I submitted the former to the magnetic influence, and she was shortly relieved from the pain and stiffness.

7. During the night, the same symptoms which took place last night came on again, but they were of shorter duration. The parts were again submitted to the action of the magnet, with similar success.

8. Complains of great weakness in the left-hand; the pain and stiffness have nearly disappeared. From the 9th to the 18th the applications were repeated daily with the most happy results. She is rapidly recovering her appetite, her general health is decidedly improved, she has regained the use of her hands, and she sleeps well. The only inconvenience she experiences is a slight heat and soreness in the articulations of the fingers, and in the flexor tendons, after which they become stiff. This is particularly the case in sudden atmospheric changes of temperature.

CASE 2.—Elizabeth Lewis, a delicate, nervous woman, aged 24, residing in

Blackfriars-road, had suffered violent pain in the right hand and arm for three or four months, and considered it to be a rheumatic affection. Having heard that one of her neighbours (Charles Walker, whose case is recorded in THE LANCET of the 6th of July last) had been cured of a similar complaint, by means of the magnet, she wished me to subject her to the same treatment.

She stated, that about four months ago, she received a blow on the back of the right-hand, from the falling of a piece of wood, and on examination I perceived a small puffy tumour at the point of the injury, from the period of which she had experienced great pain in the right hand and arm. It commenced at the back of the hand, just over the index and metacarpal bones, extending upwards towards the shoulder, and rendering the limb powerless. Her sufferings were most severe. When in bed the pain was, according to her account, of various descriptions; sometimes it was spasmodic, at others dull and aching, with an occasional sense of burning, as if hot iron was being thrust into the flesh. The pain was considerably increased upon the application of pressure, and the least sudden movement of the fingers caused acute shootings along the course of the radial and cubital nerves; yet all the other usual attendant symptoms of inflammation were absent.

A professional gentleman was consulted, when stimulating liniments and various other external remedies were ordered, and persisted in for some time; but these applications aggravated rather than ameliorated the disorder.

Her pulse was 96, small and contracted, bowels obstinate, tongue furred, skin cold and clammy, countenance pale and anxious; a slight convulsive tremor pervaded the system; her general health had been much impaired by having had four successive abortions within the last eighteen months; sleep disturbed, and appetite very delicate.

On the 26th of August I applied the magnet to the right arm and hand for half an hour, after which she was enabled to close the hand, and the forearm could be bent and rotated on the humerus, without the production, apparently, of inconvenience.

In consequence of the patient's residence being at too great a distance for the repetition of the magnet in the evening, and as she said she dreaded going to bed on account of the violence of the pain, she took an opiate at night, and was ordered another two hours afterwards, if necessary.

27. Was much distressed by headach, which appeared attributable to the opiate. The spasms were less violent; the patient slept a little, and perspired copiously. The application of the instrument was repeated, and she could bear flexion and rotation of the limb without flinching, but she complained of being greatly debilitated.

28th. Experienced much relief from the magnet; passed a tolerable night; had some refreshing sleep; said that her arm was much stronger. The spasms have been frequent, but not very violent, changing from the hand, along the nerves, to the shoulder and neck, and from thence, after a short duration, back again to the hand. Was again magnetized, and appeared easier.

The magnetic treatment was continued every alternate morning, from the 30th of August to the 10th of September, with decidedly beneficial results. After each application, the sensibility of the injured nerve was greatly diminished; at the same time the muscular power of the limb was considerably increased. In consequence of the patient having regained the use of her arm, the applications were then discontinued.

CASE 3.—The subject of this case, William Moore, an umbrella-maker, 34 years of age, residing at No. 35, Little Shire-lane, Carey-street, of a sallow complexion, complained of a constant throbbing and burning sensation of the left side of the face, as though hot needles were thrust into the flesh. His countenance evinced an unusual degree of acute mental suffering, the muscles of the neck were stiff, and he had great difficulty in moving the head. The spasms usually began behind the ear, affecting the inner angle of the eye, the upper and lower bicuspid teeth, the apex of the cheek, and the temple. The pain remained stationary at these points for a short time, and then was diffused over the whole facial plexus.

The pulse was small and quick, the tongue coated, the breath fetid, the eyes dull, with a discoloration of the skin around the orbit, particularly the left, which was unable to suffer the action of a full stream of light; the upper lid was much swollen, and laid pendant on the globe; at every spasm the ball was drawn upwards at its inner angle; this appeared to be caused by the contraction of a few twigs of nerves of the sixth pair, which ramify in the abductor muscle. All the other functions were natural.

The following is the history of the cause, treatment, and results, of the case, as given by himself:—"I had never," he said, "had a day's sickness until between three and four years ago, when I took a bad cold, which left a deafness of the left

ear. I belonged to a benefit society, and at one of our evening meetings a thoughtless young man took it into his head that my deafness was feigned, drew forth a pistol, which had a double charge in it, and while my attention was purposely diverted to something on my right, fired it off close to my left ear. The consequence was, that I became permanently deaf, and was seized with horrid gnawing pain in that ear, and on that side of my face, from that day. I had a sleepless night from the pain in my temple. Next morning I went to a doctor, who immediately bled me. This eased my head for two or three days, and then the violent gnawing shooting pains returned with double force. I had also an uncomfortable dryness of the left nostril, and I have entirely lost the sense of smell therein. I was advised to consult another medical gentleman, who ordered me a large dose of the carbonate of iron, to be taken night and morning, also two blisters, one to be put behind the ear, and the other at the back of the neck, to be repeated every three or four days, which directions I strictly obeyed eight times. The iron I took for a month. These remedies drove away the pain, and I thought I was perfectly cured, but in about a month the spasms returned, and I then saw everything double. I immediately applied to the same practitioner as before, and was under his care for two months, taking a great many drugs, and trying several things, which removed the double sight. But the pain still continued as bad as ever, and he then said that he could do no more for me, advising me to go to a dispensary, which I did. I there again tried the carbonate of iron during three months, without its doing me any service; I then got admitted into St. Bartholomew's Hospital, where, also, carbonate of iron was prescribed, and large doses of opium, mixed with peppermint water, were given to me night and morning. This made me very dizzy and stupid, and I always felt as though I was drunk. I was, in fact, at a loss to say whether the pain was not preferable to the queer and uncomfortable sensations produced by the large doses of opium. After remaining in this hospital a month, the physician who attended me said I was incurable, so I left, and again tried strong opening medicines, by order of the medical gentleman who first prescribed the carbonate of iron; but these did me no good. My left eye was now very painful, and whenever I had a spasm, the eyeball was drawn aslant, and remained so for several minutes.

"I next became an in-patient of St. George's Hospital, where many remedies were tried for four or five weeks, and not getting better, I was discharged. I went at the recommendation of several friends to four or five other medical gentlemen, without being relieved, all of them, indeed, saying that my case was hopeless. I was now worn out by want of rest and food, was unable to work at my trade, was reduced to the most abject poverty, and resigned myself to my fate, seeking no further medical advice. When the spasms were unbearable, I took large doses of laudanum. At this time a friend called on me, and said that he had seen a case in THE LANCET, of a lady who was cured of the same complaint by the mineral magnet, and advised me to lose no time in applying for relief by the same remedy."

On the 19th of September the left side of the face and neck in this man were subjected to the action of the magnet for ten minutes, when he obtained immediate relief; the pain of the face, and stiffness of the muscles of the neck, left him, and he slept for half an hour, after which the instrument was applied again, and with the most satisfactory results.

20. Has had a better night: the spasms were less violent, and not so frequent; he felt this morning a severe pricking over the eye, and the head could not be moved without inconvenience; in other respects was better. The parts were again submitted to the application of the magnet, and with decided benefit.

21. Passed a good night, a circumstance which has not occurred to him for many months. The pain and stiffness still continue; the instrument was passed over the affected nerves, and he described the result as if a load which pressed hard on the head had been suddenly removed.

22. The applications were continued daily, from this date to the 31st, with the most gratifying effects. The general health was much improved; the pain has nearly left him. There is a little stiffness now and then from exposure to wet and cold, but up to the present date he has had no return of his sufferings.

Orchard-Street, Portman Square,
November 14th, 1833.

DEATH OF MR. CALLOW.—This gentleman, the father of the medical booksellers of London, died on Friday last, at the advanced age of seventy-five. He was the head of the firm of Callow and Wilson, of Princes-street, Soho, in the house now occupied by Mr. Churchill. Mr. Callow was the first publisher who carried on the trade of medical bookselling in London, as a distinct branch of business.

PATHOLOGICAL ANATOMY.—*Illustrations of the Elementary Forms of Diseases.* By ROBERT CARSWELL, M.D., Professor of Pathological Anatomy in the University of London, &c. &c. Fasciculus I. TUBERCLE. London: Longman and Co. 1833. Coloured Plates.

"WE describe too much and draw too little," says Goethe. His remark was applied to the Belles Lettres and the Fine Arts; but it bears with equal truth on natural history, anatomy, and pathology. Who sees not at once that the form, relations, colour, and general character, of diseased animal products and structure, can be better expressed and preserved by pictorial representation than by verbal description? Words, when skillfully used, impress on the mind, through the powers of reflection, lively images of things; but the artist enlists a lively sense into the service of the reflective faculties, and thus at once abridges the labour of thought, and impresses the subject of it with double vigour on the memory.

Vesalius induced Titian and John of Calcar to assist him in producing anatomical plates; but he complains that the organs of the human body did not excite sufficient interest to fix their attention. Nought, in fact, but the inspiration of science could tempt the artist to follow through blood and filth the track of disease and deformity. He who would represent morbid structures with accuracy, must not only be an artist but a profound pathologist, for it is not pictorial effects, but scientific facts, which are to be sought out and delineated. Rarely has anything in this way been achieved more perfectly than in the immense collection of drawings accumulated at the London University. It realises almost all our requirements, and here we have the more valuable portion of them multiplied a thousand fold, for thus great at least must be the demand for the work which we are about to notice. Of the author let us say, that he is a most accurate pathologist, and an admirable artist. Twelve years of unintermitted labour he has devoted to the collection of his museum, and more than two thousand specimens of the common and rare forms of disease testify the extent of his talent and industry. By careful analysis he has shown the morbid appearances of those diseases at their commencement, and has followed them through the whole course of their development,—throwing withal such truth into his representations as to make them not only serve as splendid illustrations, but as permanent facts for study and demonstration.

The history of pathological anatomy presents as yet but few points of interest. In the seventeenth century pathological anatomy was cultivated with more or less success all over Europe. In the eighteenth century Morgagni, in his celebrated work *De Sedibus et Causis Morborum* (1761), accumulated a sufficient number of facts to make it a distinct branch of inquiry. In 1790 J. P. Meckel delivered a public course of lectures on pathological anatomy. Baillie's "Morbid Anatomy" appeared in 1793, and Baillie must be considered the founder of the modern school of pathology. Dupuytren, when *chef des travaux anatomiques*, instituted most extensive researches, lectured thereon in 1803, announced a philosophic classification, not founded on anatomy, but on morbid states or products, and thus scattered the seeds of that harvest which has since ripened in the French school.* In the works of J. F. Meckel (1815-18), Laennec (1818), Andral (1829), Louis (1826), Lobstein (1829-33), and a host of modern writers, may be traced the progress, and increasing importance of a knowledge, of diseased organization.

At an early period diseased parts were preserved in private collections, and after-

* The liberality which has distinguished the administration of the Paris hospitals since the first revolution, must not be forgotten. The field was thus opened, and the labourers soon appeared in it. In the French hospitals, Dr. Carswell collected the greater number of his cases, and, we believe, was furnished with many interesting pieces by Louis, Magendie, and others. This liberality does the officers of the Paris hospitals infinite credit. Such a work as the present never has been produced through the agency of the public institutions of our own country, and never can be until their advantages are made common to every scientific inquirer.

wards in museums. These have rapidly multiplied. Every medical school and hospital has its museum. Some of the most celebrated are those of Hunter in London, Sandifort and Burgman in Leyden, Bonn in Amsterdam, Walther* in Berlin, Meckel at Halle, and that of the School of Medicine in Paris. Florence, Pavia, Vienna, and Paris, boast of their wax preparations, but these are mostly anatomical.

Figures of preparations were published about the latter end of the seventeenth century. They chiefly represent deviations of form, diseased bones, calculi, monsters, or displaced viscera. The collections of Kerking (1670), of Bonetus (1683), of Cheselden (1733), and of Bonn (1783-5), serve to be quoted as progressive specimens. The Museum Anatomicum Academ. Lugd. Batav. (1793), places Sandifort at the head of this class. The series of engravings published by Baillie (1793-1804), commences a new epoch in the illustration of morbid anatomy; and it must be confessed, that in the attempt to represent "alterations of texture," Mr. Clift and the engravers succeeded to an astonishing extent. Monro's "Morbid Anatomy of the Human Gullet, Stomach," &c. (1811), was accompanied by engravings.† The present Meckel (J. F.) published the first fasciculus of his "Tabulæ Anatomio-Pathologicæ" in 1817. He remarked that no complete work had appeared which placed all the lesions of the body before the reader; and from the collection accumulated by his grandfather, by his father, and by himself, as well as from other sources, he promised to supply the deficiency.‡ The fourth fasciculus appeared in 1827. The subjects are interesting, the engravings indifferent, and they will probably not be completed. Language is the proper instrument of Meckel's genius in anatomy; his pencil can ensure him but a dubious mediocrity. Sir A. Cooper's "Illustrations of Hernia," "Diseased Testicles," &c., are splendid works. The plates in Hooper's "Morbid Anatomy of the Brain" (1826), in Bright's "Reports" (1827-31), in Annesley's "Researches," and in Farre's "Morbid Anatomy of the Liver," show the great advantages of colouring. Bleuland's "Icones Anatomio-Pathologicæ" (1826-7) are among the worst of the uncoloured plates, as Bright's are the best of the coloured series. Lithography has latterly been employed for the illustration of pathology. Seventeen livraisons of Cruveilhier's "Anatomie Pathologique"* have appeared since 1828. The pieces are important, and well drawn by Chazel, but the colouring is often careless, and the text is desultory, though on the whole, the work is good, cheap, will form a sort of pathological museum, and deserves a place in every medical library. Lobstein's "Illustrations," both the coloured and the uncoloured, are detestable. Dr. Hope's drawings, revised on stone by himself, are very tolerable. The parts and lesions render the work a comprehensive and useful production. The work of an amateur artist and pathologist,—set forth to exemplify the views of Andral and other writers,—it will, in great measure, answer the end for which it was undertaken. The first part of Albers' "Atlas of Pathological Anatomy" we have just seen. This compendium is well executed.†

All pathological phenomena ending in new formations or products, are the result

* Greatly augmented by Rudolphi.

† See particularly the coloured engraving of a milt-like tumour.

‡ He reproaches Baillie for excluding deviations of external form from his engravings; adding, "formæ scilicet externæ deviationes sine dubio longe rectius atque accuratius ob oculos poni possunt quam texturæ alienationes, ubi *cohæsionis diversi gradus et color* longe plus quam modus quo circumscribuntur ad imaginem faciunt fidelem."—(*Pref.*) The degree of cohesion is of great importance; it cannot be represented. It is, however, generally accompanied by change of colour or form.

* This work was projected by Bailliere the bookseller. If we are not mistaken, he offered Cruveilhier 500 francs a *livraison* for the text and the morbid specimens. The Professor, though then unprepared, accepted the offer. The figures are published promiscuously, as they are procured.

† "Atlas der Pathologischen Anatomie, für *Praktische Aerzte*," in 5 Abtheilungen, 1832, von Dr. Albers. Plates not all original.

of deranged actions of the organic elements. They are, consequently, invisible, and cannot be represented. The artist cannot show the deposition of red matter in the bone of an animal fed on madder, but he may depict the colour from its first blush to the deepest redness. He cannot picture the blood *becoming* muscle, nor fat removing and replacing this, fibre by fibre, any more than he can exhibit the process of petrifaction, when stone is usurping the place of vegetable tissue. But he can seize the results, and represent the various stages of those processes. He can show carcinomatous matter in the form of hepatic acini, until, through various stages of obliteration, this structure disappears, and the new deposit assumes a sort of radiating crystallization of its own;* and as the anatomist, by examining the embryo form of the most complicated mammalia—following its systems from the first—noting the phases of their development,—and comparing them with those of all other organizations, simple or complex, arrives at general laws which embrace every organised form; so the pathologist, by taking anormal productions at their origin, and following them through their course, must come to general principles which comprehend the most diversified of such productions, in whatever organ or organism they may be found. Those principles, though not so broad or so exact as the principles of general physics, explain the phenomena to a certain extent. Their aggregate constitutes the science of pathological anatomy; and as no science is formed of facts or of observations, but of the relations of facts, its laws can only be expressed in words or in numbers. In the "Elements of Pathology," Dr. Carswell will attempt,—after completing the analysis and comparison of all the facts yet ascertained by the pathologists of Europe—of all which he has himself seen tested on thousands of bodies—to establish those laws, and to make them as general, as philosophical that is, as the present state of our knowledge will allow.† He has chosen coloured representations, as the best and most instructive form in which he could make known some of the data, or facts, which he has seen and investigated. He expects to complete in twelve parts—each part containing four plates, and from sixteen to twenty figures—representations of all the types of all the forms of disease in his possession. They are to be drawn on stone by himself, and coloured *by* able artists. As these illustrations precede, and are in some respects independent of, the "Elements of Pathology," we trust that Dr. Carswell will bestow on the latter all the care which such a work requires to make it worthy of the present epoch, and of himself.

The subject of Dr. Carswell's first fasciculus is *tubercle*, or tuberculous matter, which he defines as "a pale yellow, or yellowish-gray, opaque, unorgnised substance, the form, consistence, and composition of which, vary with the natur of the part in which it is formed, and the period at which it is examined." This is the essential product in scrofula and in phthisis. Its formation, and the phenomena attending its deposition and elimination in the external glands, skin or bones, constitute scrofula; in the mesenteric glands, tabes mesenterica; in the lungs, phthisis pulmonalis;* &c. The white flakes in psoas abscess may be taken as the type of this substance. It is seen tolerably pure in the brain, and in pulmonary tubercles, when they come under Andral's definition; "Production d'un blanc jaunâtre de forme le plus ordinairement ronde, d'un volume infiniment variable, dur à son origine, mais déjà friable, se ramolissant ensuite, et se transformant alors en une matière non homogène constituée *par des grumaux blanchâtres* et friables qui sont comme suspendus au milieu d'un liquide seropurulent."† Scro-

* Illustrations.

† For predecessors he has Cruveilhier—"Anatomie Pathologique" (chiefly from Dupuytren's lectures); Meckel—"Handbuch der Pathologischen Anatomie" (1815-17); Andral—"Anatomie Pathol." (1829), Craigie, Otto, Lobstein, &c.

* The identity of the product in these diseases is attempted to be shown by Cruveilhier (from Dupuytren?), Laennec, Meckel, Andral, Otto, Carswell, Abercrombie, &c.

† Anatomie Path., tom. I, p. 407.

fulous matter is found in all parts of the body. In the animals below man it often affects all the organs simultaneously; in man it is more frequently determined to particular organs, and parts of organs, varying with age and other circumstances. In the medullary substance of the brain, in the air-cells of the lungs, the biliary ducts, the kidneys, the testicles, and the lymphatic glands, scrofulous matter retains all its essential properties. Hence we may infer that it is not formed by the tissue in which it is deposited, as it is difficult to conceive that every tissue in the economy could generate the same product. Baillie, A. Cooper, and Andral, found it in the thoracic duct, and Dr. Carswell has shown it in the blood. Does it then form in the fluids by the reaction of the organic elements *while in solution*, and is it deposited wherever those elements move slowly, stagnate, or are exhaled,—in the vessels or in the parenchyma of organs, on serous surfaces, or on mucous membranes? It seems probable that in a scrofulous individual there is idiosyncrasy of function, form, and structure. It may, consequently, be admitted, that all the tissues are modified, and may undergo the scrofulous transformation. But is it necessary to admit that blood or lymph first becomes tissue, and then tubercle, when, in many cases, the transformation is immediate?

With the anatomist, a "tubercle" may never lose its identity; but viewed relatively to its composition, the constituent parts vary so much as to render it absurd to designate their union always by the same name. In an analysis given by Andral,* the softened tubercles contained in 100 parts,

Animal matter	68. 15	{ others contained }	3 animal matter
Muriate of soda, phosphate of lime, carbonate of lime, oxide of iron	1.85		96 salts.

Is there nothing to distinguish, to separate, in this heterogeneous mass? In effusion on the peritoneum, the scrofulous matter must not be confounded with the coagulable lymph (fibrine and albumen), any more than with the gray semitransparent substance effused in the air-cells of the lungs. The formation of scrofulous matter in "tubercular peritonitis" is thus described by Dr. Carswell. "When we examine the peritoneum thus affected, the three following stages of the process are frequently extremely well marked. First, on one portion of this membrane there is seen a quantity of recently-secreted coagulable lymph; secondly, on another we find the same plastic semi-transparent substance, partly organised, and including within it, or surrounding, a globular mass of tuberculous matter; and lastly, on another part the coagulable lymph is found converted into a vascular or pale cellular tissue, covered by an accidental serous membrane, beneath which, and external to the peritoneal or original secreting surface, the tuberculous matter is seated, having the form of a round granular eminence, resembling, in colour and consistence, pale, firm cheese." In the semi-transparent substance in the lungs, the scrofulous matter appears as a yellow opaque point, which gradually encroaches on, and surpasses the limits of, the original deposition. It may be admitted in these cases that the scrofulous matter is diffused throughout the effused matter in which it subsequently concretes, —that it is a transformation of this matter, —or, lastly, as every living production in contact with living tissue constantly exchanges its particles, we may admit that the scrofulous matter arranges itself round a central point, as well in this substance as afterwards, or where no such substance exists.

In this first fasciculus, Dr. Carswell represents all the forms of tubercle, or rather all the complications of scrofulous matter, and treats the subject so luminously, that we may venture to assert, that no one can fail thoroughly to understand the morbid anatomy of this product if he examines these admirable plates, with the accompanying text; no one who does so can fail to recognise in nature all its varied forms.

As the work will, no doubt, be soon in all our medical libraries, we shall give but few extracts, noticing, however, two or three of the author's discoveries.

The first of these relates to the seat of

* Anatomie Path., tom. 1, p. 417.

"tubercles." Baillie and Meckel believed that pulmonary tubercles were situated in the cellular tissue which unites the air-cells.* Louis says, "Il peut se faire, ainsi que l'a dit Laennec, que les granulations se developpent dans les interstices du parenchyme pulmonaire."† Magendie first proved that tubercles were developed in the air-cells. After examining the structure of the lung by inflating, drying, and holding thin slices against the light, he observes, "Les premiers indices de la phthisie la plus commune où tuberculeuse consistent dans le depôt d'une certaine quantité de matière jaune-grisâtre dans une ou plusieurs cellules du poumon. Tantôt la matière jaune remplit exactement les cellules et les distend, mais on apperçoit facilement les petits vaisseaux sanguins qui circonscrivent la matière déposée; d'autresfois la matière jaune est mobile dans les cellules et peut probablement en être expulsée."—(Magendie's *Journal de Physiologie*, tom. 1, p. 82, 83. 1821.) Cruveilhier adopted this opinon. He fancied tubercles were produced in the air-cells by injecting mercury down the bronchi. Dr. Alison gives three cases in which tuberculous matter and air were found together in enlarged cells: he thinks this confirms Magendie's observations.‡ Andral, with Dupuy, found "tuberculous matter" in a dilated bronchus, and followed it into the smaller branches. In some cases he detected it in extremely minute bronchi; "but this can only be done where the tuberculous matter is in the *naissant* state, that is, fluid or semifluid, when the facility with which it can be expressed by simple pressure from the containing cavity allows that cavity to be recognised as part of a bronchus—a fact which cannot be demonstrated at a later period.§ Dr. Carswell has succeeded in demonstrating the existence of "tuberculous matter" in the air-cells at a later period. In truth, this seems to be the only period at which it could be made quite evident. He remarks that "the mucous system* is by far the most frequent seat of tuberculous matter. In whatever organ the formation of tuberculous matter takes place, the mucous system, if constituting a part of that organ, is, in general, either the exclusive seat of this morbid product, or is far more extensively affected with it than any of the other systems or tissues of the same organ." By some very delicate pieces of dissection, he proceeds to illustrate this law. Plate 1, fig. 1, represents "a section of the greater part of the superior lobe of the left lung; left division of the trachea and three large bronchi laid open. One of these bronchi is filled with a mass of tuberculous matter, a portion of which projects into the cavity of the tube, and thence it is seen extending into the smaller branches and air-cells, the latter presenting a granular aspect, cauliflower arrangement, &c. Fig. 2 is a beautiful specimen of the disposition of the tuberculous matter described above, &c. Fig. 3, granular-looking masses of tuberculous matter, formed by the reunion of the air-cells, partly filled or distended with this substance. Fig. 4, a portion of the lung of the cow, which may be said to present a panoramic view of the seat of tuberculous matter. Pretended hydatids, proved to be dilated air-cells and bronchi."

These dissections explain all the appearances which scrofulous matter assumes in the lungs. The common tubercle is this substance in the air-cells and bronchi, sections of which give all the various forms recorded or noticed at ordinary inspections. Scrofula matter rarely occurs in the inter-cellular tissue.

Dr. Carswell is the first who has shown the real seat of scrofulous matter in the liver. Plate 2 of Fig. 6 furnishes a beautiful illustration.

"The seat of tuberculous matter in the liver of a rabbit. A portion of the liver is represented entire, that the usual form of the tuberculous matter in the sub-

* Tuberkeln * *. Ges chwülste sind, die sich in den Zellstoff gebildet haben, der die Luftzellen vereinigt. Handbuch der Pathologischen Anatomie, 2 B, 2 Ab., p. 364.

† Phthisie Pulmonaire, p. 12.

‡ Trans. of the Edinburgh Medical and Surgical Society, vol. 1. art. Scrofula, Cases 2, 4, 8. 1824.

§ Clinique Medicale, tom. 2, p. 15.

* Has Dr. Carswell taken into consideration the immense number of white swellings, ulcers, &c., treated by *surgeons*?

stance of this organ, beneath the peritoneum, may be seen. B represents similar collections of the same morbid product, which, from the substance of the liver having been carefully dissected away from around a portion of the biliary system, is seen lodged in the extremities of the ducts, which are dilated into the shape of pyriform sacs of various sizes. In these sacs, as well as in the biliary ducts, the tuberculous matter was of the colour and consistence of cream, and was made to flow out at the cut extremity (C) of the ductus communis choledochus, when pressure was applied either to the hepatic ducts or to their bulbous extremities. The pyriform sacs presented, externally, a smooth uniform surface, except in two or three instances, in which they were slightly lobulated (as at D). Internally, some of them had a cellular aspect, but the most of them were uniformly hollow. The fundus (E) of several was connected with the substance of the liver by what appeared to be small bloodvessels."

Baron and others called these hydatids. No one suspected that they were dilated ducts. Plate 2, p. 4, shows the scrofulous matter in the tubuli stemmiferi, epidymis, vas deferens, &c. We shall only call attention to pl. 4, fig. 3, exhibiting the state of the lung in hæmoptysis; and to the other figures in pl. 4, showing the process of cure in phthisis.

Laennec proved that phthisis may be cured. Andral confirmed this fact by numerous interesting cases. Almost every pathologist has witnessed certain stages of cure, but no one has exhibited the whole of this important process so satisfactorily as Dr. Carswell.

Here our article must close, for we cannot attempt to notice all the interesting points illustrated in the yet published parts of this admirable work. We shall certainly, however, take advantage of its appearance, to select, for the instruction of our readers, the best-established facts and principles of pathological anatomy,—a fundamental branch of medicine, which is still only most imperfectly known in this country. The Illustrations of Carcinoma shall shortly be examined.

LONDON MEDICAL SOCIETY.

Monday, November 18th, 1833.

Mr. KINGDON, President.

MEDICAL REFORM.

MR. WRAY this evening submitted a proposition to the Society, which led to the adoption of the following resolution:—"That a special meeting of the Council be called to take into consideration the present state of the medical profession, and to determine on the propriety of bringing the question of a petition to Parliament (thereon) before the Society."

BLEEDING IN APOPLEXY.

Dr. UWINS then propounded the question, whether bleeding in apoplexy is not highly empirical as a general rule. His own opinion was expressed in the affirmative, and although he was by no means averse from that measure in all cases of apoplexy, yet he advised that it should never be adopted without reference to the age, circumstances, and previous condition of the patient.

Mr. DENDY wished for a distinct account of the symptoma tology of apoplexy from Dr. Uwins, that some principle might be derived for its treatment.

Dr. UWINS, however, threw no particular light on the point, observing that the great distinctive guides must, he thought, be, the meningealic or the hemorrhagic quality of apoplexy.

Dr. WHITING doubted the possibility of discriminating in all cases between the fact of serous and sanguineous effusion. In illustration of the difficulty, he mentioned a case in which the usual symptoms of apoplexy were followed by a fatal result, and wherein the post-mortem examination disclosed such a distention of both ventricles with fluid, that collapse did not take place even when the serum (four or five ounces) was removed, not a vestige of extravasated blood being discoverable in the brain, which could justify an opinion that sanguineous effusion had caused the disease. The patient had three years before had a fit of apoplexy, had been somewhat imbecile in mind from that period, and (a very singular circumstance when the duplexity of the fluid was considered) had throughout been paralytic on *one*, and only one, side of the body—a sudden increase in the quantity of serum, probably, producing the new and fatal attack. However, he (Dr. Whiting) agreed with Dr. Uwins, that bleeding was not at all times

judicious,—nay, that often it was egregiously wrong. The following instance in support of that view occurred to him. A fire-engine man was seized with apoplexy. He recovered from the fit, and returned to his occupation, but was not wholly free from cerebral affection, for he suffered often from headach. One day a medical gentleman called on him and said, "Are you quite well?"—"Pretty well," said the man, "but not perfectly right."—"Say you so?" replied the visitor, "let me bleed you, and I will entirely disperse the malady."—"With pleasure," said the man. Twenty ounces were forthwith removed from the arm. "How is it you don't faint?" said the venesector. "I never faint," replied the fireman, "and you can't make me."—"Ah, but I will," remarked the doctor," and took twenty ounces more, accomplished his threat, produced coma, subsequent paralysis of one side, and a confinement to bed for three months, where, and in which state, he (Dr. W.) saw him. Another instance, illustrating the necessity of caution, came to his memory. A young woman, in whose case he was consulted, was attacked by apoplexy. The attending surgeon bled her, and apparently relieved the circulation, but thought that no good was done unless faintness was produced. Enforcing this opinion strongly, he (Dr. W.) found it hard to oppose the suggestion, and the patient was, therefore, allowed to bleed till she swooned. She was removed to bed, had cordials, could not be revived, became apoplectic again, and died. How the bleeding produced this effect he knew not, for no post-mortem examination was allowed.

Mr. DENDY thought these instances bore not on the question, but were exaggerations of the important position Dr. Uwins had started, and took from the suggester the merit of his proposition. The fireman would certainly have died had he not been bled.

Dr. WHITING.—But it happened that he lived.

Mr. DENDY.—Well, that is as bad, or perhaps worse. (*A smile.*) The habit of the patient, as Dr. Uwins had pointed out, ought to guide us.

Dr. WILLIAMS thought bleeding must be regarded as an appropriate remedy, and mentioned a case in which eighteen ounces of blood were removed without recovery, when he (Dr. W.) saw him, and proposed the loss of a pint more. This was no sooner taken than the patient opened his eyes, seized the bleeder by the throat, and well nigh settled his business for that day. Care was certainly necessary, but he thought that the very young members of the profession were more likely to underbleed than overbleed in apoplexy.

The PRESIDENT recommended caution in the treatment by bleeding,—the preceding temperament of the patient being the best index to the remedy. The pulse was sometimes taken as a guide, but it should be remembered, that the pulse would often thump tremendously in persons of very weak habit.

Mr. HOWELL stated a case in which sixty ounces were taken with advantage, but the patient was a man who would eat a pullet and drink three glasses of brandy-and-water for a common lunch.

Mr. HEADLAND would not admit that there could be much difficulty in deciding as to the use of the lancet. Common sense, and not the dogmas of the schools, ought to direct the practitioner in his plan of treatment. The previous history of the patient was always important, and the probability of prior disease of the brain, as the result of disease of some other organ, ought invariably to be ascertained, for even the existence of a pulse so low as forty beats in a minute, ought not to hinder the abstraction of blood.

This ended the modicum of "cozey chat" which Dr. Uwins had started.

[Respecting the reform motion,—Suppose the council decide against the propriety of such a measure, on the ground that the present state of the profession had better not be discussed by them. "Ah, but they will not do so." Then why give the council the trouble of meeting? The Society requests the *council* to take the state of the profession into consideration! Surely the promoters and supporters of the resolution did not mean *that*. The duty imposed on the council in the second part of the resolution is not very clearly defined. The council are to decide on the *propriety* of bringing the *question* of a *petition* to parliament before the Society. Questions involving medical reform were long regarded with timidity in our medical societies, and even yet the object of fear is peeped at round a corner. The occasion reminds us of the astrologer who tried to soften the light of the sun by using a tortuous telescope. The beams certainly fell with mildness on his sight, but they presented no figure of the great luminary which he designed to study. Mr. Wray originally proposed that the Society should discuss the subject of medical education only, and that suggestion would have been adopted, but Mr. HOOPER interfered, and, supported by Dr. RYAN, with a pretty general cry of "Hear, hear," got the motion altered to its present form.]

MEDICO-BOTANICAL SOCIETY.

DR. CHOWNE IN THE CHAIR.

Tuesday, November 12th, 1833.

NEWS OF MEDICAL BOTANY.—INFLUENCE OF PLANTS ON SCORPIONS AND SNAKES.—EFFECTS OF DELETERIOUS RICE, AND OTHER DISEASED GRAIN.

THE first meeting of this Society for the new session took place on the above evening, when, in the absence on the Continent of Lord Stanhope, the President, Dr. Chowne took the chair, and commenced the business of the meeting with a speech congratulating the members on their re-assembling. The minutes of the last meeting were then read, and four or five new members were admitted.

Dr. SIGMOND addressed the chair in a long speech, in which he adverted to numerous presents sent to the Society, and the various discoveries which had been made, bearing on medical botany, during the vacation, dwelling especially on M. Rousseau's experiments on the medicinal properties of *ilicine*, the alkaloid produced from the *ilex aquafolia*. This medicine is stated to be an efficient substitute for quinine and cinchonine, and, on account of its cheapness, as well as its efficacy, it has been adopted extensively in practice by the surgical department of the French army. The experiments of Dr. Elliotson touching this medicine were also alluded to. Various facts relating to the comparative merits of the *manna of Briancon*, collected from the *larix Europea*, and the common manna procured from the *fraxinus ornus*, were adduced,—the preference being generally given to the former kind. The improved mode proposed by Mr. Laming for forming *a cyanuret of potassium*, by the decompositon of which a very pure hydrocyanic acid can in a moment be procured, was also quoted. Various cases were also alluded to in which the anti-asthmatic properties of the *lobelia inflata* had been tested, though without bringing out any decidedly good effects. Notice was also taken of Mr. Stoney Walsh's treatise on the several kinds of arrow-root, as well that produced from the *maranthe arundinacea*, as from other farinaceous plants. It appeared from Mr. Walsh's researches, that arrow-root of all kinds is frequently adulterated with ground rice and the farina of the potato. Amongst the presents of books Dr. S. announced the gift of a volume by Mr. Nutt, of Wisbeach, on the better cultivation of bees. Mr. Nutt was present at the meeting, and exhibited beautiful specimens of the honey and of the honeycomb produced by his improved system. Amongst the presents we particularly noticed twenty different alkalies extracted from vegetables by M. Pelletier, now constituting new remedies added by chemists to the materia medica, and properly arranged in a case, in separate bottles. Dr. Sigmond then read a paper from an American journal on the effect of the white-ash upon the rattle-snake,—the whole particulars related in which were, however, made known in this country some years since. In the course of his speech Dr. S. adverted to what he regarded as the recent very important disclosures of Dr. Tytler, which, he observed, had attracted great attention in London of late, and would be a subject of particular interest to the Society that evening, as the author of the discoveries which they involved was himself then present. He alluded to the deleterious effects of rice upon the animal system. Dr. Tytler was, he observed, a gentleman of great experience, and possessing a vast knowledge of his profession, and his views had been lately further given to the world in a pamphlet entitled "Facts establishing the delcterious properties of Rice used as an article of food," a copy of which he that evening presented to the Society. Dr. Sigmond then proceeded to analyse the contents of the pamphlet, showing that Dr. Tytler had proved by extracts from authors that the noxious properties of rice and all other grain, were known to others besides himself. His facts were most interesting in every point of view to medical botanists. Indeed whether medical gentlemen were convinced or not that bad rice had been the cause of the cholera in India, the facts stated by Dr. Tytler must command attention,—the more so because one of the most beautiful papers written by Linnæus was on a disease called *raphania* (we believe), occasioned by the use of noxious vegetables, and in which the opinions of Linnæus decidedly corresponded with the facts stated by Dr. Tytler.

Two original drawings were then exhibited to the Society, representing specimens of a disease which affects barley and oats in India, and which is named by the natives *lera* and *kindole*, which disease proceeds to such an extent as to vitiate one-sixteenth part of the barley annually grown. The black powder of the *lera* is a deadly poison.

The thanks of the Society were then given to the donors of the different presents which had been laid before the Society, and some notice was taken of those individuals who had died during the last year, who had been interested in the objects

of the Society. Amongst them was mentioned the late King of Spain and the Marquis of Conyngham,—the former as having been particularly attentive to the interests of the Society.

The PRESIDENT then observed, that if any gentleman present wished to address the chair he should be happy to hear him.

Dr. TYTLER accordingly presented himself. Alluding first to the powers of the white-ash, he stated that they were not to be considered as altogether too marvellous to be credited, for he had himself witnessed in India very singular experiments performed with a plant of the singinesous class on noxious reptiles. This plant, if held in the hand of one of the natives, had the effect of paralyzing the sting of the scorpion. There was also a root which the snake-catchers in India were in the habit of holding before Cobra de Capello, to render the animal harmless; and whenever it was presented to the snake, the head of the reptile reverted from the object, as iron would from the repelling power of a magnet. He first became acquainted with the effects of the bite of the scorpion in 1811, and had since sent a paper to the *Medical Society of Calcutta* on the subject, accompanied by a drawing, showing the position of the scorpion, its sting reversed, whilst under the influence of the plant. General O'Halloran, of the Bengal service, also sent a communication to the Medical Society, stating that he had seen a similar experiment, attended by the like results. Specimens of the plants were in his, Dr. Tytler's, possession, and he would take an early opportunity of forwarding them to the Society. Dr. Tytler then entered into a detail of the results of using diseased grain as food. He stated that the *lera* was considered as analogous to the smut in England, but that it was a decidedly organised body, for the grains of lera advance in size, ripen, and burst, exactly like sound grain. No known cause existed for this distemperature, as it was found in dry soils as well as in moist. Oats had only recently been introduced into India, and they, too, were frequently found to be affected with lera. A very valuable grain which grew in India, called *bajrah* (the *holcus spicatus* of Linnæus), was affected with *kindole*. In such cases the grains of the bajrah increased to a large size, possessing a green colour, and containing a black fetid powder. He conceived this disease in the grain to be analogous to inflammation and gangrene in the human body, and that it was occasioned by cold produced by the evaporation of moisture from the surface of the seeds. Dr. Tytler then took a very comprehensive view of the terrible effects produced by diseased grain on the animal body. He stated that mortification of various parts of the body had been produced by eating diseased grain,—a fact which he had illustrated by cases in his pamphlet, and, consequently, as some of the most dreadful diseases, such as plague and confluent small-pox, were accompanied by mortifications; and as the plague in Egypt followed the cutting of the rice crops, while small-pox had been found to prevail extensively in Europe, contemporaneously with the deterioration of the crops, it might, he thought, not be incorrect to refer the causes of these terrible maladies to the use of diseased grain as food. He then showed, by reference to history, that the effects of diseased grain had been known from the earliest antiquity; that by Galen diseased grain had been shown to be a cause of disease,—that Dr. Willan ascribed the sweating sickness to diseased grain, and now he (Dr. Tytler) considered the cholera, from the profusion of perspiration which attended the disease in its worst stage, to be a sweating sickness. In short, he added, the deterioration of the crops first took place, and the pestilence followed the consumption of the noxious grain. In conclusion, he observed that he considered the subject would be deemed of the highest importance by this Society. With this feeling, he had begged the Society to accept a copy of his pamphlet; it was a record of well-authenticated facts, and the condensed result of thirty-one years' experience in the practice of his profession in Europe, Africa, and Asia. However much his statements might seem to interfere with preconceived opinions, yet he had not been obliged to alter his opinion as time progressed, from the day he first formed his impressions on the subject discussed therein, and he doubted not, that in proportion as the facts found their way before the public, and became more fully understood, the truth would be established. He here would leave the subject to the consideration of the Society.

The worthy Doctor was listened to with profound attention, and concluded amid loud applause. The thanks of the Society were afterwards presented to him for the information he had communicated, accompanied by a high commendation of his laborious exertions.

The meeting was then adjourned to the 26th inst.

THE DIAGNOSIS
OF
ENGLISH AND ASIATIC CHOLERA.

To the Editor of THE LANCET.

SIR,—In your last LANCET, I perused with much interest the report of a discussion which took place at the London Medical Society on the 28th of last month. This discussion reminded me, that I had in my possession the particulars of a case which interested me, and with which I feel desirous that the faculty should become acquainted through the medium of your Journal. I may be in error, but I have, from the first appearance of what we in this place called "epidemic cholera," been firmly impressed, that there is no certain method of distinguishing the slighter cases of epidemic cholera from severe cases of sporadic cholera, except we have recourse to chemistry to determine the question, by an inquiry into the nature of the blood. The above-mentioned discussion confirms me in this impression.

I was called to visit a cabinet-maker of the name of Lawson, who, as a foreman, had frequently been much employed by me, and for whom I entertained much respect. He was attended by Mr. Oliver, surgeon, also a resident in Bishopwearmouth.

We found that, on the 23rd of July, he had experienced much distress in the region of the stomach, and a constant inclination to vomit, though vomiting did not take place. He had partaken of very little food for some days, nevertheless his stomach was much distended. He took a gentle aperient, and not long afterwards had two evacuations, attended by severe gripes. The thirst was incessant. These symptoms prevailed at intervals during the following day, the 24th. On the 25th the purging was incessant, and, during the whole course of the day, the pains of the abdomen, and the thirst, were, to use his own language, "past enduring." He ate a little bread and cheese in the evening, without appetite. On the 26th the purging continued severely, attended by the same symptoms. He wholly avoided eating food, and drank as seldom as possible. He retired to bed at the usual hour, and slept at intervals, but between two and three o'clock a.m., on the morning of the 27th, the sensation of sickness returned, though he did not vomit. Soon afterwards the purging commenced, and became almost continuous, though unattended by any description of pain or uneasiness. His motions were in large quantity, and of a pale tint. At five o'clock he began, for the first time, to vomit, which he promoted by drinking, unlimitedly, of warm water, with a view, as he expressed himself, to provoke it. At this time cramps of the toes commenced, which gradually extended to his legs, and at seven a.m. he sent for Mr. Oliver, the cramp having now extended to the thighs, which was most excruciating.

Thus far I have written from my notes, taken from Lawson's record, drawn up at my request. I now transcribe verbatim his own words:—

"The surgeon visited me at eight o'clock, and I soon afterwards sent for you, but before you came I took of some mixture twice which the surgeon had sent to me. I was still very sick. Hot bricks were rolled in blankets, and placed at my feet, as the extremities were very cold. About ten o'clock the purging decreased in some degree, but I had no relief from the cramps till about twelve o'clock, when they left me, in consequence of being bled at the arm. At three o'clock I was still very sick, but did not vomit, and I continued in this state the whole of next day, Sunday, the 28th. As the day advanced, however, I felt such gradual relief, that in the evening the sickness and pains left me. I beg to recall to your recollection, that after the second hour occupied by you in analysing the blood, you afforded me the great consolation of informing me, that my disease was the simple cholera of this country, and not the foreign cholera. This intelligence was the more acceptable to me, as a fatal case of foreign cholera had occurred during my indisposition at a house near me, and concerning which I had made many anxious inquiries, not only of my neighbours, but also of yourself, as you had been called to visit Mr. Snowdon, the person I allude to, two hours before his death."

This person, at my first visit, showed almost every symptom of epidemic cholera, and I was much shocked at seeing him in the situation to which he was reduced. The impressions upon the mind of Mr. Oliver, as well as my own, were most gloomy, nor did I think that he had any chance of recovery at the advanced period at which we were called in. In an adjoining room I proceeded with the analysis of the blood, and when it was nearly finished, I could not resist informing the patient that he had excellent blood in his veins, to which remark he alludes above.

I attribute his recovery to the remedial measures detailed above, particularly to the bloodletting, and warm applications. I do not think it needful to relate the

plans which we followed during the next and following days. Suffice it to say that his recovery was rapid, and most satisfactory to all concerned. The following words of the elegant Celsus, in my opinion, apply in this case.

"Cujus autem rei non est certa notitia, ejus Opinio certam reperire remedium non potest."

Lawson's blood presented to us the following constituents:—

Twenty ounces gave 1.32 cubic inches of free carbonic acid gas.

Water	754
Albumen dried at 160°	123
Colouring matter.....	61
Free carbon	32
Fibrin pressed and dried ..	17
Salts and animal extractive	13
	1000

If I am not egregiously mistaken, the state of the blood in epidemic cholera and in sporadic cholera are so essentially different, that we are compelled to admit that a sufficient criterion is thereby presented, from which the youngest practitioner may be enabled to form an accurate diagnosis.

With these impressions, the faculty are left to form whatever judgment they please; and were it not for the importance of the subject as respects human nature, I care not whether my views be admitted or rejected. One thing I will say, I defy them to be refuted by experiments.

Permit me, in conclusion, to add, that I wish to see supplementary Numbers of THE LANCET more frequently.

I remain, Mr. Editor,
Your most obedient humble servant,
WM. REID CLANNY, M.D.
Sunderland, Nov. 14, 1833.

MEDICAL REFORM MEETING.

Held at the Sussex Hotel, Bouverie-Street.

A SMALL but highly respectable meeting of the members of the Medical Profession took place on Friday evening the 15th instant, at the above hotel, Bouverie-street, to consider the means best calculated to prevent the inroads made upon the profession by ignorant and unqualified practitioners in medicine.

Mr. PROCTER, on taking the chair, explained the object of the meeting in an energetic speech. He mentioned that he was prepared with strong proofs of the practice of physic by unqualified persons, notwithstanding the existence of the celebrated Apothecaries Act. Many of his professional brethren also knew such facts to be most common, and had stated to him that if he would wait a few days, they would furnish him with details of them, and aid him in his present project, but those gentlemen, he was sorry to say, had not kept their promise, although he had complied with their request. It was his determination, therefore, to come forward as an informer himself, if necessity required. He should, however, prefer the support of his medical brethren, and for that reason he promoted this meeting. The worthy Chairman then dwelt on the advantages which would accrue from the formation of a medical club in London. Medical men, he remarked, had no general place of resort where they could discuss their grievances and form plans for the advancement of the profession. The army, navy, clergy, and lawyers, had their clubs. Even tinkers, tailors, and cobblers, had their places of assembly where they united and expressed their wants. Why, then, should not the medical profession have a Hall of Assembly? Indeed he had no doubt, that if the gentlemen present would give him their support, such an association might easily be formed as he alluded to, and he was persuaded that the advantages attending it would afford them the utmost satisfaction.

Mr. LEESE moved the first resolution. "That in consequence of the insufficiency of the existing laws to protect the public from the dangerous practices of unqualified persons exercising various branches of the art and science of medicine; and as the time is approaching when this subject will be investigated by Parliament; it is highly expedient and necessary, that the great body of the medical profession should unite, and devote their attention to this most important subject, thus placing themselves in a situation to furnish such information to the legislature as will enable it to frame laws that shall at once protect the public from ignorant practitioners, and uphold and confirm the profession in its just rights and privileges." He stated that he was one of those who took a vast deal of pains to obtain the Act of 1815, which, notwithstanding its acknowledged defects, had done a great deal of good, by improving the education of the general practitioner. The time was approaching when the profession ought to apply themselves to the removal of the numerous grievances which still existed.

Mr. WALKER seconded the motion, perfectly concurring in all that had fallen from its mover. Carried unanimously.

Mr. LINNECAR, in moving the next resolution, stated that it had been his intention to move for a committee of observation

should be appointed at that meeting, but looking around him, he thought it was not sufficiently large for so important a purpose, and he should, therefore, move for a committee to call another meeting. He wished that there was a greater spirit of union among the members of the medical profession. He did hope ere long to find it increase, for the utmost vigilance was demanded at this time, when the subject of medical reform was likely to be investigated by the Government. Gentlemen must, in fact, take care that even the few privileges they now enjoyed were not taken from them. He was induced to make this remark in consequence of having seen a pamphlet, which had lately emanated from a high quarter, containing, certainly, many valuable observations, but at the same time, some highly dangerous ones, both to the public and the medical profession. A reference to one of these would be sufficient to call the attention of the meeting to the subject. It was as follows: "As every one who can procure hearers is allowed to preach the gospel, so every one should have liberty to practise physic who can obtain patients." Mr. Linnecar added, that numerous advantages would be likely to arise from the institution of a medical club. He was anxious to see one formed, and concluded by moving the following resolution:—"That the means best calculated to carry into effect the foregoing resolution, will be the appointment of a committee to prepare the business for a more general meeting of the profession; at which meeting an efficient committee may be appointed, to collect information respecting the measures to be brought before the legislature, and to report the same to their medical brethren."

Mr. Holt, in seconding the motion, remarked that he had been concerned in the formation of a Medical Club some years since, but he was sorry to say that it did not answer expectation, but he hoped that better success would attend the present undertaking, and as far as medical reform was concerned, he would assist his medical brethren to the utmost of his power.—Carried unanimously.

Sixteen gentlemen then subscribed their names as members of the Committee, which, at the suggestion of Mr. Walker, would not, it was understood, meet until after the subject of medical reform had been discussed at the *Westminster Medical Society*. Several gentlemen put down their names as members of the Club.

Upon the motion of Mr. Eccles, a subscription was entered into to defray the expenses of Meeting. Thanks were then voted to the Chairman, and the meeting was adjourned.

THE LANCET.

London, Saturday, November 23, 1833.

While our political institutions and popular character are undergoing great and important changes, it would be most unworthy of our senators to neglect the amelioration of the scientific establishments of the country. The spirit which has produced the one ought to be extended to a reform of the others, and each should participate in the same advantages. Remarks on this subject are not confined to the members of the medical profession. The public is everywhere beginning to complain, that while "knowledge" is daily demonstrating its identity with "power" in every other department of our social system, our literary and scientific corporations evince fewer signs of reformation than is becoming to the age, and still continue in their long-confirmed state of confusion, inefficiency, and abuse. The complaint is natural. The public are the sufferers.

The day of medical reform, however, though slowly, is surely, arriving. Since the first dawn of political reform, the Legislature has been employed entirely in regenerating those parts of the Government towards which public attention has been most intensely directed. It seemed, though erroneously, to be expedient that those points from which *political* gangrene had diffused itself, should first be reduced to a healthy condition. All reform was at one time denied to the people, and when its blessings were at last conceded, no wonder that the application of its searching qualities were first demanded to those abuses in the state which were most prominent to the public eye, and best understood by the great mass of the nation.

Though, however, for this reason, we wait with patient and subdued feelings for the great changes which must take place in medical law, the profession and the public must not employ the less energetic measures for realising our just claims on Government. The cry "to arms" has been raised at an appropriate hour, and no man should sleep in his tent while his labours are demanded in the field. We have a schedule of grievances, the items of which are indisputable,—a case, the indications of which point out their own remedy. None are so hardy as publicly to deny that the state of the medical profession is incompatible with its successful tuition and practice,—that, as a science, its acquirement is obstructed, and, as a means of living, its exercise is frustrated by numerous contradictory and mischievous laws.

Among those points which must be enforced on the attention of Parliament with great energy, are the injurious effects of permitting a difference in the courses of medical education at the various universities and colleges, and of allowing the authorities at those institutions to refuse the recognition of diplomas which have been granted by their fellow teachers in other parts of the kingdom. The monstrous selfishness of the latter regulation is balanced by no conceivable advantage, while its evils are most glaring. Under a system of well-conceived laws, nothing can be more unjust, more inconsistent with the honour and welfare of the profession, than this assumption of superiority—this exhibition of contempt for the legally-recognised decisions of other scientific bodies. Even were not the custom deeply degrading and unjustifiable in its effects on the members of other institutions,—even were one set of professors and examiners more highly qualified for their offices than another,—what could be more imprudent than this public announcement of inequality in the medical institutions of the country? The rejection, for instance, of the anatomical and surgical certificates of the Dublin College of Surgeons by the University of Edinburgh, places this assumption of superiority in a prominent and remarkably ridiculous light.

The mischief of the evil extends beyond the corporators themselves, and having first generated contempt in them, it next excites jealousies among the graduates and licentiates of those bodies. It greatly embarrasses students, by compelling them to seek for knowledge at times and in places which may be not only inconvenient, but positively injurious to them. It tends to bring the science itself into popular disrepute, from the creation of a feeling that difference of education affects those who practise medicine, and results from ignorance of the art of medical tuition.

To these discrepancies then we would oppose uniformity of education among all bodies authorised to teach the medical sciences, and the free exchange of those proofs of qualification which are granted by the established schools and courts of examination. All restriction of right to practise in particular places, and to fill particular medical situations, should cease. With the consummation of a reform in medical law, an end should at once be put to all power of this kind, real or assumed, which is wielded by the Colleges of Physicians of London and Dublin, and acted on by the College of Surgeons in Ireland in the appointment of medical officers to Irish county infirmaries. No longer should such a pretended "privilege" exist as that of forbidding all but their own fellows and licentiates to practise in London and Dublin, now claimed by the Colleges of Physicians of those cities. How preposterous does the information sound in the ear of the public, that no

physician or surgeon, however high his qualifications, can be appointed to a county hospital in Ireland, unless he be also a member or licentiate of the College of Surgeons of that country, and that by the enactment of a new law the extension of this restriction to dispensaries is contemplated!

But it will be the business of the legislature to set all these questions at rest by peremptory laws, which shall, first of all, establish three great Faculties of Medicine,—one for each capital of the United Kingdom; and, secondly, require them each to demand precisely the same proofs of qualification from candidates for their diploma. There needs no law to regulate the limits within which that diploma shall authorise the candidate to practise. The certificate system being wholly abolished, the private interests of Professors and Courts of Examiners can never tempt them to seek the interposition of such restrictive powers. In fact, it is the convenience alone of the public and the profession which demands the institution of more even than *one* great faculty of medicine for the entire of the three countries. France, which is a large domain, has but one. But we desire three, for here convenience tallies with advantage, and the judicious rivalry of three well-appointed Universities will heighten the general scale of medical education. This would generate a rivalry of *science*,—of teachers competing for fame by the excellence of their instructions,—of examiners by the worthiness of their tests. Then, indeed, if either Faculty can secure an excess of candidates at its doors by the celebrity of its diploma, in God's name let that celebrity secure to the professors a profitable repute, and let hauteur and contempt be felt for those alone who have sought and obtained a legal qualification to practise, at the hands of ignorant teachers and neglectful examiners.

We venture to predict, however, that the future republic of medicine will never afford an opportunity for the exercise of such baneful feelings.

REMARKS BY DR. TYTLER ON THE LETTER OF MR. BARNETT.

To the Editor of THE LANCET.

SIR,—I beg to express my thanks to Mr. Barnett for making known the very important cases which he has transmitted to THE LANCET, and for the specimen of rice which has been sent for my inspection. The rice is of the same description as that which is mentioned in Captain Bowie's letter (see LANCET, page 119)—viz. rice which has the appearance of being good, but the deleterious qualities of which are evinced when least suspected. Thus is corroborated what I asserted in my former letter to you—viz. that the deleterious qualities of rice can, in the present state of our knowledge, only be proved by its effects on the animal system, and cannot be previously pronounced on. The disease producible by bad barley is not inferior in interest to that produced by rice; and the instance adduced by Mr. Barnett is only an illustration of the dreadful effects occasioned by a species of disease in barley, a drawing of which was laid by me before the *Medico-Botanical Society* at its last meeting. The dark powder contained in barley, and named by the natives of India *kindole* and *lera*, is well known as a deadly poison; but barley is diseased in various minor stages, and, according to the state of the grain, is the severity of the malady. But Mr. Barnett and other practitioners will remark, that I merely state these as facts, being just now by no means prepared to enter the vast field of medical research which here lies before the members of the profession. I am, Sir,

Yours very faithfully,

R. TYTLER.

London, Nov. 16th, 1833.

ELECTIONS AT THE ALDERSGATE-STREET DISPENSARY.

To the Editor of THE LANCET.

SIR,—In an explanatory letter, which appeared in your last Number from Dr. Birkbeck, he attempts to vindicate Mr. Salmon for having had recourse to the making of money votes, which he is stated to have done in self-defence. This plea was refuted, shortly after the elec-

tion, by the Committee, in an address to the Governors, from which the following is extracted:—

"Mr. Pullen, one of the secretaries to the institution, and actively engaged in the interest of Mr. Salmon, produced the first list of nominal subscribers, to the number of fifty-nine, without places of abode, and therewith a 200*l.* note, intimating, at the same time, that it was probable he should not require any change. Mr. Salmon was, therefore, decidedly the first to make nominal subscribers."—Nov. 29th, 1824.

Mr. Salmon asserted that his opponent obtained his object, by making 600 money voters, while he made only 300, but this is an error, as the numbers polled at the election were as follows:—For Mr. Ellerby, 644; for Mr. Salmon, 638. In a letter, published by him after the election, and entered on the minutes of the charity, he states—"Having been apprised that my opponent had made about 318 votes previously to the evening of closing the subscription book, I caused them to be neutralised by making exactly 321 money votes." From his own showing, therefore, it is evident that Mr. Ellerby had a majority of the old governors, and that he could not have made the number stated by Mr. Salmon.

More extraordinary still is the statement of Dr. Birkbeck respecting the election of his friend Mr. Young. His opponent, he asserts, made 400 money voters, and Mr. Young obtained his object by a majority of *five* only. The accuracy of this statement will be evident, by comparing it with the records of the charity, where the result of the election is stated thus:—

For Mr. Young	356
For Mr. Prower	250
Majority for Mr. Young..	106

The Doctor is, perhaps, equally correct in his estimate of the comparative talent of the candidates; he says, "Had this very inferior and almost unknown candidate extended the power of his purse a little further, he would have been successful, for Mr. Young had only a majority of *five*."

I am quite certain that Dr. Birkbeck will feel obliged by being corrected in his statement, as I cannot believe it is his wish to misrepresent the past transactions of the charity, or "set down aught in malice." I am, Sir,

Your obliged servant,

Nov. 14th, 1833. VERITAS.

[This letter has been properly authenticated.—ED. L.]

WANT OF SUBJECTS FOR DISSECTION IN LONDON.

To the Editor of THE LANCET.

SIR,—No student can reflect on the manner in which he is obliged to spend both his money and his time this season, without feelings of deep regret at the miserable waste of both. We are at present doing absolutely nothing, and there is scarcely a subject in the dissecting-rooms. I therefore intreat you to use your influence with the medical students now in London in calling them together to consider what means ought to be adopted to remedy this evil, and whether it would not be better to petition the College either to allow foreign certificates to be received for the future, or at least to do so until some means can be devised for obtaining a better supply of subjects. Surely the College would not refuse this; they could have no interest in making us continue "to lose good days that might be better spent." Their golden harvest would not be lessened. If pressed, they might grant this poor boon to those who wished to avail themselves of it. I am, Sir,

A STUDENT.

London, Nov. 18th.

NEW MEDICAL ASSOCIATION IN LINCOLNSHIRE. — ALDERSGATE-STREET DISPENSARY.

(*From a Correspondent.*)

A MEETING of medical gentlemen practising in the northern division of Lincolnshire took place at Kirton, in Lindsey, on Wednesday, the 30th ult., for the purpose of forming a medical association. Mr. Gunning, surgeon, Owmby, in the chair. It was not largely attended, in consequence of the difficulty attending the congregation of medical gentlemen from a long distance. Letters highly approving of the object of the meeting, and regretting their unavoidable absence, were read, received from Dr. Abbott, Mr. Rudkin Brigg, Mr. Emminson Scotter, Mr. Barton Raison, Mr. G. Foster, coroner, Kirton, and other gentlemen, several of them being members of the Hull Medical Association.

It was first moved that the above-named gentlemen, with such others as may be subsequently elected, do form a North-of-Lincolnshire branch of the Hull Medical Association, but an amendment was put and unanimously carried, "That this meeting considers it highly expedient that a medical association be formed for

the county of Lincoln, in order to encourage fair and liberal conduct amongst medical practitioners, promoting their social intercourse, and supporting the rights and privileges of the profession, on the plan of the Hull Medical Association." It was also agreed that the above-named gentlemen do form a provisional committee for carrying this object into effect, with power to add to their number, and that Mr. Palmer be requested to act as provisional secretary. It was further agreed, that a circular to the above effect should be sent to the medical practitioners at Lincoln, and such others as the Committee may deem it advisable to apply to for their opinion on the expediency of such measure. The meeting was adjourned to Wednesday, Nov. 27th, at six o'clock in the evening.

A vote of thanks was also proposed, and unanimously carried, to the late medical officers of the *Aldersgate-Street Dispensary*, for their late spirited conduct, and stating the perfect concurrence of the meeting in the opinions and sentiments expressed in the resolutions passed at the late meeting of the profession at the Freemasons Tavern, especially expressing their detestation of the illiberal professional conduct of the four persons who have accepted office at the dispensary.

MONUMENT TO JOSHUA BROOKES.

THE Committee formed for carrying this or some other memorial into effect beg to announce, through the medium of THE LANCET, that an Engraving of the late Professor is published at One Guinea, the profits arising from the sale of which will be devoted to the above purpose; and that subscriptions are also opened for the same object at the residence of each member of the Committee, and of the Secretary, who respectfully solicit the aid of such members of the profession as may feel anxious for the erection or preservation of some memorial of this eminent and industrious anatomist.

J. C. CARPUE, F.R.S., Chairman.
H. S. CHINNOCK, Brompton.
P. H. S. COLSON, Goswell-road.
R. DAVEY, 19, Great Ormond-street.
H. DAVIES, M.D., Saville-street.
T. FOWKES, Mary-street, Regent's Park.
H. HUNT, 15, Lower Brook-street.
T. HODGES, Gray's-inn-lane.
J. JOHNSON, M.D., Suffolk-place, Haymarket.
J. KENDRICK, 12, Manchester-street, Manchester-square.
T. LITCHFIELD, Twickenham.
J. LAVIES, King-street, Great George-street, Westminster.
J. MALYN, 25, Duke-street, Westminster.
J. NICHOLLES, 35, Conduit-street.
J. T. PETTIGREW, F.R.S., Saville-street.
H. BENHAM, Treasurer and Secretary, Middlesex-place, Lisson-grove.

BOTANY MEDALS GIVEN BY THE APOTHECARIES COMPANY.

THE medals which the Company of Apothecaries offer annually to the two young men who may evince the greatest proficiency in the science of botany, were awarded on Friday the 15th inst.,—the gold medal to Mr. E. S. HARE of the London University, and the silver medal to Mr. G. BIRD of Guy's Hospital. There were three unsuccesful candidates from other institutions,—St. Bartholomew's, St. George's, and King's College. The result affords much gratification to the professors and friends of the London University, and especially, of course, to Dr. Lindley, the professor of botany, in consequence of this being the fourth year that the gold medal has been adjudged to a pupil of Dr. Lindley,—viz., to Mr. Jorden in 1830, Mr. H. Griffiths in 1831, Mr. T. Cooper in 1832, and Mr. E. S. Hare in 1833,—the four years in which medals have been offered by the Company. Where such deep and invigorating draughts are uniformly taken, there must be something highly wholesome and palatable in the stream. An attempt was made in a particular quarter last year, when commenting on this subject, to deprive the then successful candidate of some portion of his laurels. "Although the success of the senior student is highly honourable," said the writer alluded to, "it can scarcely be regarded as a triumph over a competitor so much his junior." The writer also stated that Mr. Cooper was a student of several years standing, while his competitor was of one year only. Mr. Cooper now begs us to do him the favour of saying that this was wholly incorrect, he neither being older in age nor as a student. He had attended only one course of lectures on botany, his competitor, Mr. P. K. Weston, having attended at least the same.

The students all underwent a very good *viva voce* examination, and therefore the result was determined by a series of written answers to questions put at an examination held about a fortnight before. These, Mr. Don, the examiner, stated were all good, and although the replies of the gentleman to whom he had awarded the gold medal (Mr. Hare) by far outstripped

those of the other four candidates, the whole were most highly creditable to the several gentlemen, and he had had no easy matter in determining to whom the silver medal was due.

WESTMINSTER HOSPITAL.

CANCER.

August 24.—To-day, Mr. Lynn presented to his colleagues an elderly woman with carcinoma of the right breast. There was a hard tumour involving the mammary gland, but moveable, and unattached to the subjacent muscles. The nipple was retracted, and the adjacent veins were enlarged,—beginning to assume the concentric appearance to which was originally applied the name of *cancer*. Although the patient had attained the grand climacteric, the catamenia had not totally ceased, and her health, with the exception of the affected mamma, had not been much impaired. Five years had elapsed since she was first annoyed by this disease, but it had proceeded very sluggishly until within these few months, when it progressed more rapidly. Sir Anthony Carlisle was decidedly opposed to an operation, because the disease being constitutional, its eradication from one part would be followed by its generation in another. "There is not," exclaimed Sir Anthony, "a single instance on record of a successful amputation of genuine cancer. Amputations have taken place, and no ill consequences have followed, but in these instances, without a doubt, the true carcinomatous characters were awanting. I recollect getting a great deal of credit when I was a young man for the amputation and cure of a supposed case of cancer. My patient was the wife of a farming gentleman, resident about forty miles from town. She was about forty years old, and had a hard tumour in one of her breasts, which was pronounced by her medical attendant to be cancer. I was called in, and was of the same opinion. I cut out the tumour, and took it home with me. When I opened it I found it was an encysted tumour, with a hydatid in the middle."—Mr. White recommended an operation, on the ground that if amputation was not a radical cure, it would deliver the patient from a great deal of actual suffering, and was therefore justifiable as a palliative. It was determined ultimately that the woman's general health should be at present attended to, and that the removal of the breast should be a subject for future consideration.

Complicated Fracture of Foot.—C. Knight, ætat. 58, was brought in on Saturday, July 13th, with comminuted fracture of the tarsus. The wheel of a heavy stone truck, carrying 25 cwt., passed over his foot as it lay sideways, and crushed it. A wound extended over the internal malleolus, commencing above the insertion of the tendo Achillis, and reaching as far as the middle of the metatarsal bone of the great-toe, cut through the integuments, and among the tendons. There was considerable laceration of all these tissues. The greater part of the integument covering the back of the foot was detached from the subjacent tendons, &c. The ancle-joint was fortunately not penetrated, and its ligaments were not much injured, but the tarsus was actually smashed. On the outer side of the foot there was a division of integument of less extent than on the inner side. There existed considerable hemorrhage when the man was admitted, and some pallor and faintness; pulse 60, full. The patient was placed in bed, and the attendant brought the sides of the wound loosely together, laying the leg sideways, on a pillow. Conceiving that immediate amputation was requisite, Mr. Finch directly sent for the surgeon on duty. That gentleman, however, was engaged in his private practice, and did not see the patient till next morning. The man continued so quiet that the house-surgeon did not think it urgent to send for any of the other surgeons. Knight passed a very good night, suffering but little from his foot; and was so comfortable when seen by Mr. Lynn, his proper surgeon, that it was thought expedient to leave the limb *in statu quo*. Mr. White afterwards saw the case, and said, that had he been in the hospital when the man came in, he would have amputated his leg immediately, before nervous and sanguineous reaction had arisen, so that the shock of the operation would have added nothing to the noxious effect of the original injury; but, under existing circumstances, he recommended giving the patient the chance of saving his limb. The tongue is clean; his bowels act freely, and his pulse is 55.

17. There is no febrile excitement; the good fellow has recovered his natural colour; the wounds are suppurating; he sleeps well, his appetite is good, and his pulse is 54. The wounds are dressed with a slightly stimulating ointment, having the cabalistic name of C. M. P., the active ingredient of which is the nitrico-oxide of quicksilver. The composition of this nostrum shall be made known in another article.

20. The wounds on both sides present

granulatory surfaces. The same dressing is applied, and the leg and adjacent clothes are sprinkled with a solution of the chloruret of calcium. The tongue is moist, but a little furred. The bowels are open; pulse 50; appetite good. He is allowed full diet and a pint of porter. The bones of the tarsus appear to be consolidating in a manner illustrative of the boundless resources of nature in a good constitution.

THE RICE EATEN BY THE DECEASED MRS. WELDON.

To the Editor of THE LANCET.

SIR,—In my letter in last week's LANCET, I mentioned that my patient (Weldon) stated that she purchased the rice at the corner of Osborn-street, opposite Whitechapel church. I have since that communication taken an opportunity of examining the same kind of rice said to be then sold, as well as some now selling, and, in justice to the proprietor (whose establishment is of the first respectability), I beg to say that it appears to me to be perfectly sound and good, and of such a quality, that I should not have hesitated to have used it in my own family. I am, Sir, yours obediently,

J. W. BARNETT.

75, Fore-street, Limehouse,
November 21st.

*** We trust that rice from the same parcel is *not* "now selling" at the establishment in question. Surely the *appearance* of the rice signifies little if the use of it, as food, be capable of producing death. —ED. L.

INQUIRY.

To the Editor of THE LANCET.

SIR,—You will, perhaps, excuse the liberty I take in requesting you to furnish us, if possible, in THE LANCET, with the particulars of an operation for stone, that was performed on a person of the name of William Stone, of Ashford, near Bakewell. The case is a rather interesting one to persons in this neighbourhood. The man is a gamekeeper to the Duke of Devonshire, and was sent to London by his Grace, having previously had his bladder examined. It contained five stones, one of them very large. He has been in London a month, and only one letter has been received from him. In that he stated that he had been operated upon six times without effect, had suffered most severely, and was in lodgings in Oxford-street, but he did not say what part of the street. He is a very fine robust man. I am, Sir, your most humble servant,

A SURGEON IN THE NEIGHBOURHOOD OF ASHWELL.

12th November, 1833.

DEATH OF WILLIAM ROBERTS.

To the Editor of THE LANCET.

SIR,—According to an account that I have seen in THE LANCET of the 28th of September, I feel it my duty as his widow, having been continually with him to contradict it, relating to the death of Wm. Roberts, sawyer, who died at the London Hospital, on Sunday, Sept. 5th, 1833. The neglect was by the writer of the note to you attributed to Surgeon Andrews, but, Sir, I can assure you, as soon as Surgeon Andrews returned from the country, he found the patient that had been placed under his care treated very improperly for a broken or a fractured limb. Those persons acting under him had put him on full diet, when he ought to have been kept very low. The poor sufferer felt in himself a confidence, that if he had been attended by Surgeon Andrews, he would have eventually recovered. He spoke in the highest possible praise of Surgeon Andrews, and likewise of the Rev. Gentleman, the Governor, that attended him at his last moments; and I can also speak of Mr. Andrews's strict attention, which I am heartily sorry was too late to remedy the evil sustained.—Sir, I remain,

MARY ROBERTS,
Widow of the deceased.

No. 17, Charles-street, St. George's East,
Nov. 9th, 1833.

THE COLCHESTER MEDICAL SOCIETY, Dr. Tomkin, President, have also expressed their cordial approbation of the conduct of the ex-medical officers of the Aldersgate-Street Dispensary, in an able address to those gentlemen, at the conclusion of which the Society observes "that it *laments exceedingly*, that any individuals should be found so forgetful of what is due to themselves, and to the honourable profession to which they belong, as, under *such* circumstances, to accept of offices that were resigned for just and praiseworthy reasons, and with the universal approbation of their medical brethren, both in the metropolis and throughout the country."

ALDERSGATE-STREET DISPENSARY.—A Correspondent says,—The struggle at the Dispensary being over, the ill effects are progressively showing themselves; the influential and more respectable governors are withholding their subscriptions. Many instances of this have occurred; some of the interviews with the collector have been both interesting and amusing. The common reply when he calls is, "Not at home;" or if fortunate enough to obtain admission, the remark is, "I am sorry you have called so many times, because I do not intend subscribing again." The Committee have directed the collector to give in a monthly account of all "sece-

ders," fearing the annihilation of their drug house. It is the general impression among the governors that a new institution will spring up. I hear that Mr. Herring, Treasurer and Druggist, looks with fear and trembling at his late proceedings. The profession have very generally remonstrated with him respecting it, and a few days since numerous letters came from Hull, inquiring his reasons for the late insult to the members of a profession from whom he derives the means of subsistence.

Aldersgate-street, Nov. 13th, 1833.

CORRESPONDENTS.

The malignant cholera may be said to have altogether disappeared from Paris.

Several general practitioners announce to us that it is their intention to close accounts with Mr. Herring, the wholesale druggist, and treasurer of the Anti-medical Dispensary.

OWEN REARDON.—With respect to the complaint of Owen Reardon, that he was ill-treated and insulted in the *Royal Dispensary for Diseases of the Ear*, a letter has been received from the Governor, who recommended this patient, and who has been a subscriber to the charity upwards of sixteen years; in that communication the Governor alleges that no complaint has been made to him by Owen Reardon, or by any other individual whom he has sent to the institution; and he has recommended in all upwards of a hundred and fifty patients.

Z. Z.—We find that our reporter's account was a strictly correct statement of the language of the physician. Under these circumstances it would be absurd to commence a correspondence the continuance of which would lead to no useful result.

Mr. Woolley's case of Empyema, cured by paracentesis alone, did not reach us until we had matter enough in type for a couple of numbers. It shall appear next week.

A——s.—Piquant and purely descriptive notices might find a place in our columns, but in requiring us to publish statements of facts. *A.* should favour us with his name, confidentially. We object, however, to publish any letter until the subject of it is completed. The present letter demands abridgment.

We have not yet had time to peruse the letter of *Delta*.

The letter of *Dr. Simon* next week.—J. D. H. should have written in his own name.

Mr. Hume the chemist, of Long Acre, was the first to administer magnesia in cases of poisoning with arsenic. It was given successfully by that gentleman, and has been since administered by others with undoubted advantage.

A Surgeon near Ashford. We will inquire.—*Mr. Valentine.* At this moment we do not know what reply to give. Search shall be made.

A Respondent must send us his name.

The Address from Portsmouth, Portsea, and Gosport arrived too late for this week's LANCET, but it is far too good a document to suffer deterioration by delay.

An Individual is informed that there is no such institution, but attempts have been made to establish one in Great Marlborough-street.

Mr. Harrison will, possibly, derive satisfaction from the labours of the next Session of Parliament, but we are much inclined to suspect that empiricism cannot be destroyed, even by an act of the Legislature.

Medicus.—After what has passed, the Censors of the College of Physicians will not admit him to an examination. Should they decide otherwise, on what ground could they refuse to examine LONG, EADY, LAMERT, or any other quack?

Mr. Palmer.—A "niche" is quite at his service. There is no prejudice in this quarter against Mr. Smith's self-supporting" system; but if the "system" of Mr. Smith be so advantageous, how is it that our correspondent has "modifications" to propose? Certain *modifications* are all that *we* require. In short, Mr. Smith has, in his dispensary arrangement, selected the very worst and rejected the best parts of the medical machinery of every club in the kingdom.

The publication of *Mr. Courtney's* letter, although every word in it we believe to be strictly true, would subject us to an action for libel, if not to the severer penalty of a criminal prosecution. The conduct of Mr. C. was strictly professional, and his treatment of the patient humane and judicious. Hence he has no cause of self-reproach.

A. B. M.—A licentiate of Edinburgh would, under the circumstances, be liable to the penalty. But it is possible, that an unqualified practitioner, as a druggist for example, would be exempt.

The publication of the letter of *A Medical Student*, Cheltenham, would prove injurious to the character of the profession generally, and, coming as it does from an anonymous correspondent, it could not confer any benefit on the practitioner whom it eulogises.

J. J.—An early review of the work shall appear in this journal.

The publication of the letter of *Scrutator* might prove injurious to the parties whom the writer is desirous of serving. The meeting, we conjecture, must have been convened under some mistaken information.

Communications received from Mr. E. Thomson, Dr. Blundell, Mr. H. Bird, Dr. Yeatman.

PROFESSOR GRANT'S LECTURE.—An accident has happened to one of the engravings intended to illustrate Lecture VII. of Professor Grant. The publication of that lecture is therefore unavoidably delayed one week.